Noel, Dorothy R.
Service Paper
1946

Exercises for the Development of A begining Reading Vocabulary in MenTally Retarded Children.

BOSTON UNIVERSITY
SCHOOL OF EDUCATION

LIBRARY

Service Paper
Noel, D.M.
1946

The Gift of Dorothy R. Noel
Donor

Ed.
Service Paper
1946
Noel, D. R.
Stored

BOSTON UNIVERSITY

SCHOOL OF EDUCATION

EXERCISES FOR THE DEVELOPMENT OF A BEGINNING READING VOCABULARY IN MENTALLY RETARDED CHILDREN

Submitted by

Dorothy Rosamond Noel
(B. S. in Education,
State Teachers College,
Bridgewater, 1943)

In partial fulfillment of requirements for
the degree of Master of Education

1946

First Reader: Helen B. Sullivan, Associate Professor of Education

Second Reader: Helen A. Murphy, Assistant Professor of Education

Third Reader: _____

Boston University
School of Education
Library

Gift of D. R. Noel
School of Education
June 12, 1946
26981

ACKNOWLEDGEMENTS

The writer is deeply grateful to Dr. Helen Blair Sullivan for her guidance and assistance in the preparation of this service paper.

Digitized by the Internet Archive
in 2016 with funding from
Boston Library Consortium Member Libraries

https://archive.org/details/exercisesfordeve00noel

TABLE OF CONTENTS

ACKNOWLEDGEMENTS..... i

TABLE OF CONTENTS..... ii

INDEX TO TABLES..... iii

CHAPTER I - INTRODUCTION..... 1

CHAPTER II - SUMMARY OF RELATED READINGS..... 3

CHAPTER III - PLAN OF THE STUDY..... 15

CHAPTER IV - ANALYSIS OF DATA..... 27

WORKBOOK MATERIAL..... 38

CHAPTER V - SUMMARY AND CONCLUSIONS..... 173

CHAPTER VI - SUGGESTIONS FOR FURTHER RESEARCH..... 176

BIBLIOGRAPHY..... 178

APPENDIX..... 181

INDEX TO TABLES

TABLE		PAGE
I.	Individual Intelligence Ratings Obtained From Stanford-Binet Tests	27
II.	Individual Scores made on the Durrell-Sullivan Reading Capacity Tests	29
III.	Scores made on the Inventory Vocabulary Check, October 1, 1945	30
IV.	Scores made on the Second Vocabulary Check, December 3, 1945	32
V.	Scores made on the Third Vocabulary Check, January 16, 1946	33

INDEX TO TABLES

CHAPTER I

INTRODUCTION

The purpose of this study was to prepare a set of workbook exercises to develop a beginning reading vocabulary in a group of mentally retarded children whose I.Q.'s ranged from 69 to 74. Since research has proved that such children can learn to read with a fair degree of ability by the time they reach the age of sixteen, it seemed necessary to devise some plan that would aid these children in acquiring a foundation for beginning reading.

Two factors were considered in this study:

1. To develop a vocabulary that these children would need to use in all of their future reading.
2. To utilize the best methods and techniques for insuring the complete mastery of the beginning reading vocabulary.

Getting the right start in reading is of great importance to the mentally retarded child. There seems to be little point in giving a child with low intelligence any formal reading before he has mastered a sufficient amount of words in his sight vocabulary. For this reason, the investigator believes that, at the beginning, the backward child should have a program of reading that will insure the complete mas-

CHAPTER I

INTRODUCTION

The purpose of this study was to prepare a set of work-book exercises to develop a beginning reading vocabulary in a group of mentally retarded children whose I.Q.'s ranged from 69 to 74. Since research has proved that such children can learn to read with a high degree of ability by the time they reach the age of sixteen, it seemed necessary to devise some plan that would aid these children in acquiring a foundation for beginning reading.

Two factors were considered in this study:

1. To develop a vocabulary that these children would need to use in all of their future reading.
2. To utilize the best methods and techniques for insuring the complete mastery of the beginning reading vocabulary.

Seeking the right start in reading is of great importance to the mentally retarded child. There seems to be little point in giving a child with low intelligence any formal reading before he has mastered a sufficient amount of words in his sight vocabulary. For this reason, the investigator believes that, at the beginning, the backward child should have a question of reading that will insure the complete mas-

tery of a certain number of words that he will use in all of his future reading. To accomplish this it seems reasonable to believe that special attention should be given to the teaching methods and instructional materials in order that they may be adapted to the abilities and limitations of every child. Baker, in his study of exceptional children, corroborates what has been said above when he states, "Specialists in subject matter should outline detailed plans different from the average or rapid-learning if maximum results may be secured for the slow-learning." 1/

A teacher can no longer be complacent about those children with I.Q.'s over 65 who do not learn to read. The importance of teaching these children to read cannot be disregarded if we are to train them in becoming self-sufficient citizens. Research studies concerned with mentally retarded children have attempted to make provision for their needs and abilities in order that they may share in the pleasures and opportunities of our democratic way of life.

1/ Harry J. Baker, Introduction to Exceptional Children (New York: The Macmillan Company, 1944), p.250.

tery of a certain number of words that he will see in all of his future reading. To accomplish this it seems reasonable to believe that special attention should be given to the teaching methods and instructional materials in order that they may be adapted to the abilities and limitations of every child. Baker, in his study of exceptional children, corroborates what has been said above when he states, "Specialists in subject matter should outline detailed plans different from the average or rapid-learning if maximum results may be secured for the slow-learning." 1/

A teacher can no longer be complacent about those children with I.Q.'s over 85 who do not learn to read. The importance of teaching these children to read cannot be disregarded if we are to train them in becoming self-sufficient citizens. Research studies concerned with mentally retarded children have attempted to make provision for their needs and abilities in order that they may share in the pleasures and opportunities of our democratic way of life.

1/ Harry J. Baker, Introduction to Exceptional Children (New York: The Macmillan Company, 1944), p.820.

CHAPTER II

SUMMARY OF RELATED READINGS

Very few experiments have been carried out to determine what words mentally retarded children should learn to read, as well as effective methods and techniques for developing a beginning reading vocabulary in such children. Since so few studies have been made in this field, we must base our solution to the problem on the results of research done with normal children.

It is evident, that for reading purposes, all words are not of equal value. The words of greatest importance for the normal child to learn to read are those which he will meet most frequently in his future reading. Since there are no conclusive data to determine what words mentally retarded children are going to need or what kind of reading they will do in later life, it seems quite necessary to follow the pattern used with normal children.

Several investigations have been made to discover the words used most frequently in reading material. Some of the most important studies are worth considering.

Thorndike's 2/ investigation is perhaps the most extensive of its kind. He selected 20,000 words which he consid-

---

2/ Edward L. Thorndike, The Teachers Wordbook of 20,000 Words (New York: Bureau of Publications, Teachers College, Columbia University, 1930), 182 pp.

CHAPTER II

SUMMARY OF RELATED STUDIES

Very few experiments have been carried out to determine what words mentally retarded children should learn to read, as well as effective methods and techniques for developing a beginning reading vocabulary in such children. Since so few studies have been made in this field, we must base our solution to the problem on the results of research done with normal children.

It is evident, that for reading purposes, all words are not of equal value. The words of greatest importance for the normal child to learn to read are those which he will meet most frequently in his future reading. Since there are no conclusive data to determine what words mentally retarded children are going to meet or what kind of reading they will do in later life, it seems quite necessary to follow the pattern used with normal children.

Several investigations have been made to discover the words used most frequently in reading material. Some of the more important studies are worth considering.

Thorndike's [2] investigation is perhaps the most extensive of its kind. He selected 20,000 words which he consid-

---

[2] Edward L. Thorndike, The Teacher's Handbook of 20,000 Words (New York: Bureau of Publications, Teachers College, Columbia University, 1930), 148 pp.

ered to be of greatest value. He made this selection from two hundred or more sources which included the Bible, textbooks, newspapers, books, and classics. While this list represents a general reading vocabulary, it is well to remember that many of the future investigators referred to it constantly.

Gates 3/ made a similar but less extensive investigation which yielded a list of 1500 words suitable for use in all forms of reading in grades one, two, and three. These words were selected from many sources including children's literature, reading, and the oral vocabulary of young children. The selection of words was based on their utility, interest, and degree of difficulty for children.

The International Kindergarten Union 4/ and Wheeler-Howell 5/ lists are widely used. The former consists of words used by children before entering school, while the latter is a tabulation of words found in ten primers and ten first readers.

Dolch 6/ compiled a list of 220 basic words that all

3/ Arthur L. Gates, A Reading Vocabulary for the Primary Grades (New York: Bureau of Publications, 1935), 29 pp.

4/ Child Study Committee of the International Kindergarten Union, A Study of the Vocabulary of Children Before Entering First Grade (Washington, D.C.: International Kindergarten Union, 1928), 36pp.

5/ H. E. Wheeler and Emma Howell, "A First Grade Vocabulary Study," Elementary School Journal, 31: 52-60, September, 1930.

6/ Edward W. Dolch, "A Basic Sight Vocabulary," Elementary School Journal, 36: 456-60, February, 1936.

ered to be of greatest value. He made this selection from two hundred or more sources which included the Bible, textbooks, newspapers, books and classics. While this list represents a general reading vocabulary, it is well to remember that many of the future investigators referred to it constantly.

Gates 3/ made a similar but less extensive investigation which yielded a list of 1500 words suitable for use in all forms of reading in grades one, two, and three. These words were selected from many sources including children's literature, reading, and the oral vocabulary of young children. The selection of words was based on their utility, interest, and degree of difficulty for children.

The International Kindergarten Union 4/ and Wheeler-Howell 5/ lists are widely used. The former consists of words used by children before entering school, while the latter is a tabulation of words found in ten primers and ten first readers.

Dolch 6/ compiled a list of 220 basic words that all

3/ Arthur L. Gates, A Reading Vocabulary for the Primary Grades (New York: Bureau of Publications, 1935), 29 pp.

4/ Child Study Committee of the International Kindergarten Union, A Study of the Vocabulary of Children Before Entering First Grade (Washington, D.C.: International Kindergarten Union, 1928), 36pp.

5/ R. E. Wheeler and Emma Howell, "A First Grade Vocabulary Study," Elementary School Journal, 31: 52-60, September, 1930.

6/ Edward W. Dolch, "A Basic Sight Vocabulary," Elementary School Journal, 36: 456-60, February, 1936.

children should know. The investigator believed that when a pupil could recognize these words instantly and easily, he would have a foundation for attacking and learning any future reading material. All of the words were common to the lists previously mentioned.

Stone 7/ tabulated the most important 150 words to be taught to children before books are introduced. His selection of words was based on the frequency in which they appeared in a series of primers. These words were common to the list compiled by Horn 8/, who recorded the most common thousand words in the oral vocabulary of children up to and including six years of age.

The study made by Kyte 9/ yielded a list of one hundred common words usable by primary grade teachers in all phases of their classroom work involving words. The list included thirty-one nouns, twenty-four verbs, nine adjectives, seven prepositions, and two conjunctions.

Rinsland's 10/ study resulted in the tabulation of

7/ Clarence Stone, Better Primary Reading (St. Louis: The Webster Publishing Company, 1936), pp. 50-53.

8/ Ernest Horn, "The Development of a Meaningful Vocabulary and of Independence in Word Recognition," Twenty-fourth Yearbook of the National Society for the Study of Education, Part I (Bloomington, Illinois: Public School Publishing Company, 1925), pp. 186-93.

9/ George C. Kyte, "A Core Vocabulary for the Primary Grades, "Elementary School Journal, 44: 157-66, October, 1943.

10/ Henry D. Rinsland, A Basic Vocabulary of Elementary School Children (New York: The Macmillan Company, 1945), 323pp.

children should know. The investigator believed that when a pupil could recognize these words instantly and easily, he could have a foundation for attacking and learning any future reading material. All of the words were common to the lists previously mentioned.

Stone 7\ selected the most important 120 words to be taught to children before books are introduced. His selection of words was based on the frequency in which they appeared in a series of primers. These words were common to the list compiled by Horn 8\, who recorded the most common thousand words in the oral vocabulary of children up to and including six years of age.

The study made by Ayre 9\ yielded a list of one hundred common words used by primary grade teachers in all phases of their classroom work involving words. The list included thirty-one nouns, twenty-four verbs, nine adjectives, seven prepositions, and two conjunctions.

Rinsland's 10\ study resulted in the tabulation of

7\ Clarence Stone. Better Primary Reading (St. Louis: The Webster Publishing Company, 1929), pp. 89-93.

8\ Ernest Horn, "The Development of a Meaningful Vocabulary and of Independence in Word Recognition," Twenty-Fourth Yearbook of the National Society for the Study of Education, Part I (Bloomington, Illinois: Public School Publishing Company, 1925), pp. 186-[illegible].

9\ George D. Ayre. "A Core Vocabulary for the Primary Grades." Elementary School Journal. 44: 157-60. October, 1943.

10\ Henry D. Rinsland. A Basic Vocabulary of Elementary School Children (New York: The Macmillan Company, 1945), [illegible].

25,632 words which were common to the written vocabulary of children in grades one through eight. He gathered samples of written material from children throughout the United States. These samples contained some six million words from which he compiled his list.

Kirk 11/ recommended that teachers of mentally retarded children be acquainted with all of the standard word lists so that the necessary words would be included in all of the pre-book work. Other words could be used, but unless a child mastered by sight the words which appeared most frequently in books, reading would become too laborious a process. Mastery of such words would aid the child in reading more fluently and with greater meaning.

There is a scarcity of material and information which deal directly with the methods and techniques for developing a beginning reading vocabulary in mentally retarded children. Various specialists in the field of reading advocate the use of the regular reading program with a maximum amount of supplementary material and provision for many more repetitions. The Gates 12/ and Huber 13/ studies made it evident that the

---

11/ Samuel A. Kirk, Teaching Reading to Slow Learning Children (Boston: Houghton-Mifflin Company, 1940), pp. 94-97.

12/ Arthur L. Gates, Interest and Ability in Reading (New York: The Macmillan Company, 1930), 264 pp.

13/ Miriam B. Huber, The Influence of Intelligence Upon Children's Reading Interests (Teachers College Contributions to Education No. 312. New York, Bureau of Publications, Teachers College, Columbia University, 1928), 128 pp.

25,000 words which were common to the written vocabulary of children in grades one through eight. He gathered samples of written material from children throughout the United States. These samples contained some six million words from which he compiled his list.

Kirk [11] recommended that teachers of mentally retarded children be acquainted with all of the standard word lists so that the necessary words would be included in all of the pre-book work. Other words could be used, but unless a child mastered by sight the words which appeared most frequently in books, reading would become too laborious a process. Mastery of such words would aid the child in reading more fluently and with greater meaning.

There is a scarcity of material and information which deal directly with the methods and techniques for developing a beginning reading vocabulary in mentally retarded children. Various specialists in the field of reading advocate the use of the regular reading program with a maximum amount of supplementary material and provision for many more repetitions. The Oates [12] and Cohen [13] studies made it evident that the

---

[11] Samuel A. Kirk, Teaching Reading to Slow Learning Children (Boston: Houghton-Mifflin Company, 1940), pp. 94-97.

[12] Arthur I. Oates, Interest and Ability in Reading (New York: The Macmillan Company, 1930), 224 pp.

[13] Miriam S. Huber, The Influence of Intelligence Upon Children's Reading Interests (Teachers College Contributions to Education No. 311. New York, Bureau of Publications, Teachers College, Columbia University, 1928), 124 pp.

child of low intelligence enjoys substantially the same kind of material as does the normal child, and that he learns most effectively by a program similar to that found to be enjoyed by other pupils.

Featherstone stated:

> There are no special methods for teaching slow learning children to read. They learn to read in the same way other children learn to read. Any of the tested methods of teaching reading advocated by specialists in the field may be used with the slow learner. 14/

Inskeep 15/ stressed the importance of using methods that would take into account the disabilities of the retarded mind. The interest of the child must be aroused to make him feel the need of learning and the joy that comes from achievement and success. Presenting the subject matter concretely and through the senses with simple and direct approaches aids in stimulating the learning situations.

Kirk 16/ pointed out that before any reading is taught to mentally retarded children, the instructor should first of all reestablish the child's confidence which has been broken down through failure in school for many years. After this has been done, the reading program should be adapted to his

---

14/ William B. Featherstone, Teaching the Slow Learner (New York: Bureau of Publications, Teachers College, Columbia University, 1941), p. 72.

15/ Annie D. Inskeep, Teaching Dull and Retarded Children (New York: The Macmillan Company, 1926), pp. 29-47.

16/ Kirk, op. cit., pp. 43-60.

child of low intelligence enjoys substantially the same kind of material as does the normal child, and that he learns most effectively by a program similar to that found to be enjoyed by other pupils.

Featherstone states:

> There are no special methods for teaching slow learning children to read. They learn to read in the same way other children learn to read. Any of the tested methods of teaching reading advocated by specialists in the field may be used with the slow learner. 14\

Inskeep 15\ stressed the importance of using methods that would take into account the disabilities of the retarded mind. The interest of the child must be aroused to make him feel the need of learning and the joy that comes from achievement and success. Presenting the subject matter concretely and through the senses with simple and direct approaches aids in stimulating the learning situations.

Kirk 16\ pointed out that before any reading is taught to mentally retarded children, the instructor should first of all re-establish the child's confidence which has been broken down through failure in school for many years. After this has been done, the reading program should be adapted to his

---

14\ William B. Featherstone, Teaching the Slow Learner (New York: Bureau of Publications, Teachers College, Columbia University, 1941), p. 72.

15\ Annie D. Inskeep, Teaching Dull and Retarded Children (New York: The Macmillan Company, 1928), pp. 23-27.

16\ Kirk, op. cit., pp. 49-50.

needs and abilities with provision for many repetitions in a variety of settings. To facilitate the development of a reading vocabulary, the author stressed the importance of developing auditory and visual discrimination as well as the adequate use of the English Language.

Featherstone declared:

> Making use of the oral language of the children in reporting or discussing their everyday experiences is the best way, and at the beginning the only effective way, to build vocabulary. . . . In reducing the oral language to printed symbols on the blackboard, on a chart, or for seatwork, the teacher must be careful to build up the secure mastery of the common words that can be used as the sight vocabulary. 17/

Baker 18/ recommended short and simple methods, wise use of drill, and much concrete material in teaching the mentally retarded. Because the child tends to learn by simple mental processes, he needs an abundance of drill and repetition.

Goddard 19/ stated that it was futile to teach reading to defective children unless they could make intelligent use of what they learn. As yet there are no criteria for determining whether or not these children benefit from such instruction.

17/ Featherstone, op. cit., p. 73.

18/ Baker, op. cit., p. 250-252.

19/ Henry E. Goddard, School Training of Defective Children (Yonkers-on-Hudson, New York: World Book Company, 1923), pp. 74-75.

needs and aptitudes with provision for many repetitions in a variety of settings. To facilitate the development of a reading vocabulary, the author stressed the importance of developing auditory and visual discrimination as well as the adequate use of the English language.

Featherstone declared:

> Making use of the oral language of the children in reporting on discussing their everyday experiences is one best way, and at the beginning the only effective way, to build vocabulary . . . . In reducing the oral language to printed symbols on the blackboard, on a chart, or for seatwork, the teacher must be careful to build up the secure mastery of the common words that can be used as the sight vocabulary. [11]

Baker [12] recommended short and simple methods, wide use of drill, and much concrete material in teaching the mentally retarded. Because the child tends to learn by simple mental processes, he needs an abundance of drill and repetition.

Goddard [13] stated that it was futile to teach reading to defective children unless they could make intelligent use of what they learn. In yet there are no criteria for determining whether or not these children benefit from such instruction.

---

[11] Featherstone, op. cit., p. 73.

[12] Baker, op. cit., p. 280-282.

[13] Henry H. Goddard, School Training of Defective Children (Yonkers-on-Hudson, New York: World Book Company, 1920), pp. 74-76.

In an evaluation of a school for defective and epileptic children in the Middle West, Hart 20/ found the area of least progress was in vocabulary and sentence construction. It is evident from her study that mentally retarded children need organized methods and techniques for enlarging their vocabularies.

Durrell 21/ reported that a variety of presentations and a knowledge of progress seemed to be the best methods of motivating the acquiring of a beginning reading vocabulary. Various devices such as flashcard drills, lantern slides, and workbook exercises are useful. Words beginning with "th" and "wh" cause much difficulty and confusion when we attempt to teach them. Unless such words are introduced gradually the slow-learner will be unable to grasp them.

Hildreth 22/ found that slow-learners can actually achieve success, even though their ultimate goal is less than that of normal children, if they are provided with reading material containing a light vocabulary load. Failure to make necessary adjustments in the vocabulary for slow-learners has

---

20/ Oliver Hart, "An Evaluation of a School for Retarded and Epileptic Children," American Journal on Mental Deficiency 39: 177-84, October, 1934.

21/ Donald D. Durrell, "A Vocabulary for Corrective Reading," Elementary English Review, 11: 106-109, April, 1934.

22/ Gertrude Hildreth, "All in Favor of a Low Vocabulary," Elementary School Journal, 44: 462-70, April, 1943.

In an evaluation of a school for defective and epileptic children in the Middle West, Hart 20/ found the area of least progress was in vocabulary and sentence construction. It is evident from her study that mentally retarded children need organized methods and techniques for enlarging their vocabularies.

Durrell 21/ reported that a variety of presentations and a knowledge of progress seemed to be the best methods of motivating the acquiring of a beginning reading vocabulary. Various devices such as flashcard drills, lantern slides, and workbook exercises are useful. Words beginning with "th" and "wh" cause much difficulty and confusion when we attempt to teach them. Unless such words are introduced gradually the slow-learner will be unable to grasp them.

Hildreth 22/ found that slow-learners can actually achieve success, even though their ultimate goal is less than that of normal children, if they are provided with reading material containing a light vocabulary load. Failure to make necessary adjustments in the vocabulary for slow-learners has

---

20/ Oliver Hart, "An Evaluation of a School for Retarded and Epileptic Children," American Journal on Mental Deficiency 50: 177-24, October, 1954.

21/ Donald D. Durrell, "A Vocabulary for Corrective Reading," Elementary English Review, 11: 106-109, April, 1954.

22/ Gertrude Hildreth, "All in Favor of a Low Vocabulary," Elementary School Journal, 44: 452-70, April, 1943.

accounted for many reading failures. The use of frequent repetition of old words and a gradual introduction of new words will help cut down difficulty.

Parkham 23/ pointed out that the low I.Q. must learn by acquiring meaningful precepts in order to build up clear mental concepts. This can be accomplished by utilizing every opportunity to give training through the senses. Illustrative material should be shown and discussed. Activities must be done daily to enrich the oral vocabulary and to build up meaningful concepts. Drawing, dramatic play, songs, and games help to develop the vocabulary and make meaningful the words already learned.

Gates and Pritchard 24/ found that in the Speyer program in New York, activities, such as have been mentioned above, were of great importance to the slow-learner. Very little reading was done but the children were given a variety of ways to learn through listening, observing, studying models, and doing practical experiments.

23/ Lillian Parkham, "Teaching Low I.Q.'s to Read," English Journal, 32: 560-62, December, 1943.

24/ Arthur L. Gates and M. C. Pritchard, "Teaching Reading to Slow Learning Children," Teachers College Record, 43: 355-63, January, 1942.

accounted for many reading failures. The use of frequent repetition of old words and a gradual introduction of new words will help cut down difficulty.

Parkham 23/ pointed out that the low I.Q. must learn by acquiring meaningful precepts in order to build up clear mental concepts. This can be accomplished by utilizing every opportunity to give training through the senses. Illustrative material should be shown and discussed. Activities must be done daily to enrich the oral vocabulary and to build up meaningful concepts. Drawing, dramatic play, songs, and games help to develop the vocabulary and make meaningful the words already learned.

Gates and Pritchard 24/ found that in the Speyer program in New York, activities, such as have been mentioned above, were of great importance to the slow-learner. Very little reading was done but the children were given a variety of ways to learn through listening, observing, studying models, and doing practical experiments.

23/ Lillian Parkham, "Teaching Low I.Q.'s to Read," English Journal, 32: 550-62, December, 1943.

24/ Arthur L. Gates and M. C. Pritchard, "Teaching Reading to Slow Learning Children," Teachers College Record, 45: 355-63, January, 1942.

Farnum 25/ suggested that teachers help children develop needed concepts through rich and varied experiences. This is quite necessary because so many children with low intelligence have incorrect concepts of meaning. If a child acquires the correct meaning of a word, the teaching of that word is made easier.

In a study made by Walsh 26/ in the ungraded classes of New York City, tests revealed that there was a gradual but unmistakable improvement in the reading achievement of special class pupils when a program of reading was adapted to their needs and abilities. Few words were presented and repeated constantly in new situations and through games and concrete experiences. Various objects in the room were labeled. Attention was called to the unusual characteristics of words. As a result, the children not only made progress, but they became aware of their success and developed an interest in learning to read.

Most authorities in the field of reading agreed that the retarded child should be taught a method of word recogni-

---

25/ Martha Farnum, "Visual Aids in Concept Development" Eighth Yearbook, Claremont College Reading Conference (Claremont College, California, 1943), pp. 93-100.

26/ Elizabeth A. Walsh, "Improvement of Reading Ungraded Classes," Journal of Exceptional Children, 4: 145-55, April, 1938.

Farnum 25/ suggested that teachers help children develop needed concepts through rich and varied experiences. This is quite necessary because so many children with low intelligence have incorrect concepts of meaning. If a child acquires the correct meaning of a word, the teaching of that word is made easier.

In a study made by Walsh 26/ in the ungraded classes of New York City, tests revealed that there was a gradual but unmistakable improvement in the reading achievement of special class pupils when a program of reading was adapted to their needs and abilities. Few words were presented and repeated constantly in new situations and through games and concrete experiences. Various objects in the room were labeled. Attention was called to the unusual characteristics of words. As a result, the children not only made progress, but they became aware of their success and developed an interest in learning to read.

Most authorities in the field of reading agreed that the retarded child should be taught a method of word recogni-

---

25/ Martha Farnum, "Visual Aids in Concept Development" Eighth Yearbook, Claremont College Reading Conference (Claremont College, California, 1942), pp. 95-100.

26/ Elizabeth A. Walsh, "Improvement of Reading Ungraded Classes," Journal of Exceptional Children, 4: 145-55, April, 1938.

tion during the reading program. Most normal children learn this without any formal instruction but the backward child needs continued guidance if he is to improve his reading.

Ingram stated:

> Perhaps our failure to teach some of the mentally retarded to read is due to the fact that we have not aided them in acquiring skill in the differentiation and recognition of words. 27/

She believed that some form of phonics is quite necessary for the backward child. There is of course a need for study and experimentation to determine the amount of phonics and the value of such for the mentally retarded child. If we analyzed the investigations made in this field with normal children we would realize that a knowledge of phonetic elements is an effective way of recognizing and attacking words. Phonetic analysis should be considered a tool to be used in word recognition rather than a method of teaching children to read.

The kinaesthetic approach to teaching reading is worth considering when teaching mentally retarded children. In a study made by Fernald and Keller 28/ it was found that children

---

27/ Christine P. Ingram, Education of the Slow-Learning Child (New York: World Book Company, 1935), p. 341.

28/Grace Fernald and Helen Keller, "The Effect of Kinaesthetic Factors in the Development of Word Recognition in the Case of Non-Readers," Journal of Educational Research, 4: 355-77, December, 1921.

tion during the reading process. Most normal children learn this without any formal instruction but the backward child needs continued guidance if he is to improve his reading.

Ingram states:

> Perhaps our failure to teach some of the mentally retarded to read is due to the fact that we have not given them in acquiring skill in the differentiation and recognition of words. 27\

She believed that some form of phonics is quite necessary for the backward child. There is of course a need for study and experimentation to determine the amount of phonics and the value of such for the mentally retarded child. If we analyzed the investigations made in this field with normal children we would realize that a knowledge of phonetic elements is an effective way of recognizing and attacking words. Phonetic analysis should be considered a tool to be used in word recognition rather than a method of teaching children to read.

The kinaesthetic approach to teaching reading is worth considering when teaching mentally retarded children. In a study made by Fernald and Keller 28\ it was found that children

---

27\ Christine P. Ingram, Education of the Slow-Learning Child (New York: World Book Company, 1936), p. 341.

28\ Grace Fernald and Helen Keller, "The Effect of Kinaesthetic Factors in the Development of Word Recognition in the Case of Non-Readers," Journal of Educational Research, 25: 355-77, December, 1921.

who had failed to read by the ordinary school method learned very rapidly when they were required to trace the words with their fingers and later to reproduce them in writing from memory. Kirk 29/ made a similar study with subnormal boys and when the two methods were compared there was greater retention when manual tracing was used. While such a method may be beneficial in some cases, further research must be directed to determine the value of such an approach to reading.

Gates 30/ suggested the use of picture-word cards for introducing the beginning reading vocabulary. The cards have words and pictures on one side and the identifying word or words on the reverse side. Many varieties of exercises and games can be introduced with these cards to make the work interesting and worthwhile. The author also suggested the use of a picture dictionary for developing skills in word mastery. Such a project not only provides meanings of words but provides a means of reviewing old words and learning new ones.

Vaughn and Hubbs 31/ experimented with a group of lower grade morons in teaching a reading vocabulary with the picture-

---

29/ Samuel A. Kirk, "The Influence of Manual Tracing on the Learning of Simple Words in the Case of Subnormal Boys," Journal of Educational Psychology, 24: 525-35, October, 1933.

30/ Arthur L. Gates, op. cit., pp. 283-93.

31/ Charles L. Vaughn and Lorena Hubbs, "Teaching Reading Vocabulary to Lower Grade Morons," American Journal of Mental Deficiency, 42: 68-76, May, 1937.

who had failed to read by the ordinary school method learned very rapidly when they were required to trace the words with their fingers and later to reproduce them in writing from memory. Kirk 29/ made a similar study with subnormal boys and when the two methods were compared there was greater retention when manual tracing was used. While such a method may be beneficial in some cases, further research must be directed to determine the value of such an approach to reading.

Gates 30/ suggested the use of picture-word cards for introducing the beginning reading vocabulary. The cards have words and pictures on one side and the identifying word or words on the reverse side. Many varieties of exercises and games can be introduced with these cards to make the work interesting and worthwhile. The author also suggested the use of a picture dictionary for developing skills in word mastery. Such a project not only provides meanings of words but provides a means of reviewing old words and learning new ones.

Vaughn and Hubbs 31/ experimented with a group of lower grade morons in teaching a reading vocabulary with the picture-

---

29/ Samuel A. Kirk, "The Influence of Manual Tracing on the Learning of Simple Words in the Case of Subnormal Boys," Journal of Educational Psychology, 24: 523-35, October, 1933.

30/ Arthur L. Gates, op. cit., pp. 283-93.

31/ Charles L. Vaughn and Lorena Hubbs, "Teaching Reading Vocabulary to Lower Grade Morons," American Journal of Mental Deficiency, 42: 68-16, May, 1937.

word cards. They found that such children were able to learn and retain words by this method and that their progress exceeded those children who were given only classroom instruction.

While many of the studies in this review have dealt primarily with the normal child, it is apparent that much of the material gathered can be of use in teaching the mentally retarded child. It is evident, from the lack of research, that much must be done before we can claim any effective method for developing a reading vocabulary in mentally retarded children. Since research has proved that such children can learn to read up to or even beyond their mental ages, our aim should be to make effective provision for teaching them to read to the very core of their capacity.

The information and material gathered from this study satisfies but does little but theorize. The special class teacher who must teach reading to slow-learners needs daily lessons to follow as well as suggestive methods for teaching these lessons. The purpose of this study, as previously stated, was to prepare a day by day workbook the aim of which was to improve the recognition vocabulary of a group of slow-learning children by instruction in the projected workbook.

word cards. They found that such children were able to learn and retain words by this method and that their progress exceeded those children who were given only classroom instruction.

While many of the studies in this review have dealt primarily with the normal child, it is apparent that much of the material gathered can be of use in teaching the mentally retarded child. It is evident, from the lack of research, that much that is done before we can claim any effective method for developing a reading vocabulary in mentally retarded children. Since research has proved that such children can learn to read up to or even beyond their mental ages, our aim should be to make effective provision for teaching them to read to the very core of their capacity.

The information and material gathered from this study satisfies but does little but theories. The special class teacher who must teach reading to slow-learners needs daily lessons to follow as well as any active methods for teaching these lessons. The purpose of this study, as previously stated, was to prepare a day by day workbook the aim of which was to improve the recognition vocabulary of a group of slow-learning children by instruction in the prepared workbook.

CHAPTER III

PLAN OF THE STUDY

Purpose

The purpose of this study was to build a set of workbook exercises that would aid in the development of a beginning reading vocabulary in mentally retarded children.

Problems

The problems encountered in the construction of these exercises were as follows:

1. To construct exercises that would help the retarded child to secure the complete mastery of a certain number of words.
2. To adapt the methods and techniques of the vocabulary instruction to the needs, abilities, and interests of the mentally retarded child.
3. To construct exercises that would provide for instruction in methods of word recognition.
4. To construct exercises that would help to cultivate correct skills, habits, and attitudes essential to reading.
5. To construct exercises that would aid in the development of motor coordination.
6. To construct exercises that would provide drill in visual and auditory discrimination.

CHAPTER III

PLAN OF THE STUDY

Purpose

The purpose of this study was to build a set of work-book exercises that would aid in the development of a beginning reading vocabulary in mentally retarded children.

Problems

The problems encountered in the construction of these exercises were as follows:

1. To construct exercises that would help the retarded child to secure the complete mastery of a certain number of words.
2. To adapt the methods and techniques of the vocabulary instruction to the needs, abilities, and interests of the mentally retarded child.
3. To construct exercises that would provide for instruction in methods of word recognition.
4. To construct exercises that would help to cultivate correct skills, habits, and attitudes essential to reading.
5. To construct exercises that would aid in the development of motor coordination.
6. To construct exercises that would provide drill in visual and auditory discrimination.

Vocabulary

The vocabulary used in the workbook consisted of 83 words which were selected from the Gates List 32/. All of the words were common to several other standard vocabulary lists. The vocabulary in the exact order as it was presented follows:

red	squirrel	book	under
orange	cow	ball	in
yellow	goat	box	on
green	horse	table	draw
blue	duck	clock	make
purple	bird	balloon	here
brown	rabbit	chair	yes
black	sheep	see	no
one	dog	I	play
two	chicken	A	can
three	cat	sled	for
four	mother	kite	me
five	father	bed	big
six	baby	it	little
seven	boy	is	jump
eight	girl	this	and
nine	barn	they	run
ten	tree	he	who
the	boat	she	what
color	car	am	find
pig	house	by	

The number of words introduced in any one lesson varied greatly. With the exception of the color and number words not more than six new words were introduced at one time. Following the introduction of words were several pages of drill and review exercises. All words were presented and reviewed in a variety of settings with opportunity for a maximum amount of

---

32/ Gates, op. cit., pp. 9-13

Vocabulary

The vocabulary used in the workbook consisted of 83 words which were selected from the Gates List 32/. All of the words were common to several other standard vocabulary lists. The vocabulary in the exact order as it was presented follows:

red	squirrel	book	under
orange	cow	ball	in
yellow	goat	box	on
green	horse	table	draw
blue	duck	clock	make
purple	bird	balloon	here
brown	rabbit	quail	yes
black	sheep	see	no
one	dog	I	play
two	chicken	A	can
three	cat	sled	for
four	mother	kite	me
five	father	bed	big
six	baby	it	little
seven	boy	is	jump
eight	girl	this	and
nine	bars	they	run
ten	tree	he	who
the	boat	she	what
color	car	am	find
pin	house	by	

The number of words introduced in any one lesson varied greatly. With the exception of the color and number words not more than six new words were introduced at one time. Following the introduction of words were several pages of drill and review exercises. All words were presented and reviewed in a variety of settings with opportunity for a maximum amount of

32/ Gates, op. cit., pp. 9-13

repetition. It was evident that words presented at the beginning of the workbook received many more repetitions than those presented later. If this study were to be continued for a longer period all words would be duly repeated.

The number of repetitions given each word was based on the needs of the group with which this workbook was used. The words "a," "the," "color," "see," and "is" were repeated more than was actually needed, yet it was necessary to include them frequently because of the wording required for the various exercises. The number of repetitions given each word was as follows:

red----44	squirrel-18	book----28	under--11
orange-27	cow------27	ball----55	in-----21
yellow-31	goat-----20	box-----32	on-----11
green--33	horse----23	table---38	draw---11
blue---38	duck-----15	clock---21	make---53
purple-16	bird-----23	balloon-26	here---36
brown--28	rabbit---21	chair---33	yes----33
black--22	sheep----16	see-----70	no-----37
one----15	dog------46	I-------39	play---58
two----20	chicken--24	A------198	can----46
three--29	cat------38	sled----18	for----31
four---21	mother---14	kite----15	me-----26
five---18	father---15	bed-----17	big----19
six----22	baby-----15	it------35	little-26
seven--17	boy------49	is------87	jump---41
eight--17	girl-----31	this----51	and----16
nine---15	barn-----25	they----11	run----37
ten----15	tree-----41	he------15	who----56
the---175	boat-----29	she-----14	what---44
color--88	car------18	am------26	find---30
pig----15	house----47	by------13	

repetition. It was evident that words presented at the beginning of the workbook received many more repetitions than those presented later. If this study were to be continued for a longer period all words would be duly repeated.

The number of repetitions given each word was based on the needs of the group with which this workbook was used. The words "a," "the," "color," "see," and "is" were repeated more than was actually needed, yet it was necessary to include them frequently because of the wording required for the various exercises. The number of repetitions given each word was as follows:

red----44	squirrel-18	book----28	under--11
orange-27	cow-----27	ball----35	in-----31
yellow-31	goat-----20	box-----32	on-----11
green--33	horse----23	table---38	draw---11
blue---38	duck-----15	clock---21	make---53
purple-16	bird-----33	balloon-26	here---36
brown--28	rabbit---21	chair---33	yes----33
black--22	sheep----16	see-----70	no-----37
one----15	dog-----45	I-------39	play---58
two----20	chicken--24	A------198	can----46
three--29	cat-----38	sled----18	for----31
four---21	mother---14	kite----15	me-----26
five---18	father---15	bad----17	big----19
six----22	baby-----15	it-----35	little-26
seven--17	boy-----40	is-----87	jump---41
eight--17	girl-----31	this----51	and----16
nine---15	barn-----25	they----11	run----37
ten----15	tree-----41	he-----15	who----56
the---175	boat-----29	she-----14	what---44
color--36	car-----18	am-----26	find---30
pig----15	house----47	by-----13	

Supplementary Exercises

Several exercises were put into the workbook for the purpose of providing auditory and visual drill in recognizing initial consonants. Several pages were included to provide drill in recognizing the plurals of the nouns contained in the vocabulary.

Subjects

A group of mentally retarded boys in a primary special class were available for this study. Four of the boys were from underprivileged homes while two were from average middle-class homes. Three of the boys came from homes where little or no English was spoken and where one of the parents was illiterate. Only two of the boys claimed having newspapers or books in their homes. In three instances there were other members of a family who were either in or had been in special classes for the mentally retarded. In general the home environment of the group offered little or no stimulus to reading.

All of the boys had been placed in a special class after having spent at least two years in the first grade. A preliminary reading check revealed that none of them could read any material from preprimers. A further check showed that not more than six words could be recognized by any of the children. This situation indicated a need for definite training in developing a beginning reading vocabulary.

Supplementary Exercises

Several exercises were put into the workbook for the purpose of providing auditory and visual drill in recognizing initial components. Several pages were included to provide drill in recognizing the plurals of the nouns contained in the vocabulary.

Subjects

A group of mentally retarded boys in a primary special class were available for this study. Four of the boys were from underprivileged homes while two were from average middle-class homes. Three of the boys came from homes where little or no English was spoken and where one of the parents was illiterate. Only two of the boys claimed having newspapers or books in their homes. In three instances there were other members of a family who were either in or had been in special classes for the mentally retarded. In general the home environment of the group offered little or no stimulus to reading.

All of the boys had been placed in a special class after having spent at least two years in the first grade. A preliminary reading check revealed that none of them could read any material from preprimers. A further check showed that not more than six words could be recognized by any of the children. This situation indicated a need for definite training in developing a beginning reading vocabulary.

Preliminary Testing

In September 1945, the group was given the Stanford-Binet Test 33/ to determine the mental ages and I. Q.'s. During the same month the Durrell-Sullivan Reading Capacity and Achievement Tests 34/ were administered in an effort to obtain some data on the reading capacity and achievement of each child. An individual vocabulary test was also given using the words which were to be developed in the workbook. While it was realized that most of the subjects could recognize but few of the words, it seemed desirable to give this test in order to check the vocabulary growth at the end of the study.

Procedure

The actual work of developing the beginning reading vocabulary was begun on October 1, 1945. Fifty minutes a day for a period of eight weeks was the time given over to the work. It was possible to give individual attention to the group since the other members of the class were working in

---

33/ Lewis M. Terman, and Maud A. Merrill, New Revised Stanford-Binet Tests of Intelligence. (Boston: Houghton-Mifflin Company, 1937). Form M.

34/ Donald D. Durrell and Helen B. Sullivan, Reading Capacity and Achievement Tests, Primary Test: Form A. (Yonkers-on-Hudson, New York: World Book Company, 1939).

Preliminary Testing

In September 1929, the group was given the Stanford-Binet Test [30] to determine the mental ages and I. Q.'s. During the same month the Terman-Sullivan Reading Capacity and Achievement Tests [31] were administered in an effort to obtain some data on the reading capacity and achievement of each child. An individual vocabulary test was also given using the words which were to be developed in the workbook. While it was realized that most of the subjects could recognize not few of the words, it seemed desirable to give this test in order to chart the vocabulary growth as the end of the study.

Procedure

The actual work of developing the beginning reading vocabulary was begun on October 1, 1929. Fifty minutes a day for a period of eight weeks was the time given over to the work. It was possible to give individual attention to one group since the other members of the class were working in

---

[30] Lewis M. Terman, and Maud A. Merrill, New Revised Stanford-Binet Tests of Intelligence. (Boston: Houghton-Mifflin Company, 1930). Form M.

[31] Lewis D. Terman and Helen G. Sullivan, Reading Capacity and Achievement Tests, Primary Test: Form A. (Yonkers-on-Hudson, New York: World Book Company, 1929).

the regular grades during the fifty-minute periods.

The daily program was as follows:

9:10--9:20	Oral drill to develop auditory and visual discrimination of letters.
9:20--9:30	Make wall charts and picture dictionaries as part of above work.
9:30--9:45	Introduce new words. Review old words.
9:45-10:00	Workbook exercises.

Ten minutes a day was devoted to oral work in auditory and visual drill in an effort to increase each child's ability to recognize words and letters. Sixteen initial consonants were developed during the eight weeks of study. These included the letters b, c, d, f, g, h, j, k, l, m, n, p, r, s, t, and w. It was planned to present and teach two initial consonants each week. The method of presenting and teaching each consonant was the same as that used by Durrell-Sullivan in "Building Word Power". 35/

As part of the above work ten minutes a day were allowed for preparing wall charts and making picture dictionaries. The children searched through magazines and catalogues for pictures of words that began with the letters that they had studied. Some of these pictures were pasted upon large wall charts upon which the names of the letters were printed.

35/ Donald D. Durrell and Helen Sullivan, Building Word Power (Yonkers-on-Hudson, New York: World Book Company, 1941). 94 pp.

the regular grades during the fifty-minute periods.

The daily program was as follows:

9:10--9:20 Oral drill to develop auditory and visual discrimination of letters.

9:20--9:30 Make wall charts and picture dictionaries as part of above work.

9:30--9:45 Introduce new words. Review old words.

9:45-10:00 Workbook exercises.

Ten minutes a day was devoted to oral work in auditory and visual drill in an effort to increase each child's ability to recognize words and letters. Sixteen initial consonants were developed during the eight weeks of study. These included the letters b, c, d, f, g, h, j, k, l, m, n, p, r, s, t, and w. It was planned to present and teach two initial consonants each week. The method of presenting and teaching each consonant was the same as that used by Durrell-Sullivan in "Building Word Power". 35/

As part of the above work ten minutes a day were allowed for preparing wall charts and making picture dictionaries. The children searched through magazines and catalogues for pictures of words that began with the letters that they had studied. Some of these pictures were pasted upon large wall charts upon which the names of the letters were printed.

35/ Donald D. Durrell and Helen Sullivan, Building Word Power (Yonkers-on-Hudson, New York: World Book Company, 1941), 94 pp.

The remaining pictures were pasted in individual booklets which were to be used as picture dictionaries.

Fifteen minutes a day was the time used for the actual teaching of the vocabulary. Whenever it was possible the words were introduced through pictures. Various matching exercises, games, and contests were used to motivate learning. Each child was provided with individual word cards upon which the new words were printed. These cards were used for both oral and seatwork exercises and for individual checking. start here

The following games and exercises were used to motivate the learning of the vocabulary.

Color Game

Distribute cards upon which the names of colors have been printed. Have each child find something in the room the color of which is printed on his card. Score one point for each correct response. Collect cards and distribute again making sure each child has a different card. Proceed in the same manner until each child has had all of the cards. The child with the highest score is the winner.

Number Game

Have the names of numbers one to ten printed on cards. Have a box of buttons, pegs, or other small objects on a table near by. Give each child a card and tell him to get as many objects as the word on the card says. Score five points

The remaining pictures were pasted in individual booklets which were to be used as picture dictionaries.

Fifteen minutes a day was the time used for the actual teaching of the vocabulary. Whenever it was possible the words were introduced through pictures. Various matching exercises, games, and contests were used to motivate learning. Each child was provided with individual word cards upon which the new words were printed. These cards were used for both oral and seatwork exercises and for individual checking.

The following games and exercises were used to motivate the learning of the vocabulary.

Color Game

Distribute cards upon which the names of colors have been printed. Have each child find something in the room the color of which is printed on his card. Score one point for each correct response. Collect cards and distribute again making sure each child has a different card. Proceed in the same way or until each child has had all of the cards. The child with the highest score is the winner.

Number Game

Have the names of numbers one to ten printed on cards. Have a box of buttons, pegs, or other small objects on a table near by. Give each child a card and tell him to get as many objects as the word on the card says. Score five points

for each correct response. (scoring five points aids children in counting by five's). Continue game until each child has had all of the cards.

Find-the-Picture Game

Distribute cards upon which the names of animals or objects have been printed. Have pictures of these arranged on a table or chalk-tray. Tell each child to find a picture that matches the word on his card. Allow about thirty seconds for finding pictures. The child who collects the greatest number of correct pictures wins the game.

Grab-box Game

Have a number of cards upon which have been printed the words taught. Place these cards in a large cracker box. Let each child take turns in grabbing a card. If he can recognize the word he may keep it, but if he fails on the word the card is put back into the box. The child with the most cards at the end of the game is the winner.

Matching Game

Use about thirty words and make two or four copies of each. Distribute six or seven cards to each player. The remaining cards are placed face-down in a pile. Each of the players discard words for which he has matching cards. Each child then takes turns in picking a card from the pile. The

for each correct response. (Scoring five points also children in counting by fives). Continue game until each child has had all of the cards.

Find-the-Picture Game

Distribute cards upon which the names of animals or objects have been printed. Have pictures of these arranged on a table or chalk-tray. Tell each child to find a picture that matches the word on his card. Allow about thirty seconds for finding pictures. The child who collects the greatest number of correct pictures wins the game.

Grab-Box Game

Have a number of cards upon which have been printed the words taught. Place these cards in a large crayon box. Let each child take turns in grabbing a card. If he can recognize the word he may keep it, but if he fails on the word the card is put back into the box. The child with the most cards at the end of the game is the winner.

Matching Game

Use about thirty words and make two or four copies of each. Distribute six or seven cards to each player. The remaining cards are placed face-down in a pile. Each of the players discard words for which he has matching cards. Each child then takes turns in picking a card from the pile. The

child who matches all of his cards first wins the game.

Riddles

Have the answers to the riddles on cards placed on the chalk-tray. The teacher reads the riddles and the children must try to find the words that answer them. These are a few of the riddles used in this study.

1. I grow in the ground.
   Sometimes I am green.
   Sometimes I have fruit on me.
   I give people shade.
   What am I? (tree)

2. People sit on me.
   Sometimes I am soft.
   Sometimes I am hard.
   You have one in school.
   What am I? (chair)

3. I am round.
   Sometimes I am big.
   Sometimes I am small.
   Sometimes I am red.
   Boys and girls play with me.
   Sometimes I am made of rubber.
   What am I? (ball)

child who matches all of his cards first wins the game.

Riddles

Have the answers to the riddles on cards placed on the chalk-tray. The teacher reads the riddles and the children must try to find the words that answer them. These are a few of the riddles used in this study.

1. I grow in the ground.
   Sometimes I am green.
   Sometimes I have fruit on me.
   I give people shade.
   What am I? (tree)

2. People sit on me.
   Sometimes I am soft.
   Sometimes I am hard.
   You have one in school.
   What am I? (chair)

3. I am round.
   Sometimes I am big.
   Sometimes I am small.
   Sometimes I am red.
   Boys and girls play with me.
   Sometimes I am made of rubber.
   What am I? (ball)

4. I am made of paper.

I have pages.

People read me.

What am I? (book)

5. I keep the animals warm.

I store their food.

I am sometimes near a house.

What am I? (barn)

6. People put things in me.

Sometimes I am big.

Sometimes I am small.

I look very pretty at Christmas.

What am I? (box)

7. I have two hands.

I cannot see.

I tell you when to get up.

Sometimes I stop.

What am I? (clock)

4. I am made of paper.

I have pages.

People read me.

What am I? (book)

5. I keep the animals warm.

I store their food.

I am sometimes near a house.

What am I? (barn)

6. People put things in me.

Sometimes I am big.

Sometimes I am small.

I look very pretty at Christmas.

What am I? (box)

7. I have two hands.

I cannot see.

I tell you when to get up.

Sometimes I stop.

What am I? (clock)

Find the Name

Have the necessary words scattered about the room. Tell the children to:

1. Find the name of the animal that gives us milk.
2. Find the name of the animal that gives us eggs.
3. Find the name of the animal that likes nuts.
4. Find the name of the animal that has long ears.
5. Find the name of the animal that gives us rides.
6. Find the name of the animal that can swim.
7. Find the name of the animal that gives us wool.
8. Find the name of the animal that catches mice.
9. Find the name of the animal that barks.
10. Find the name of the animal that gets fat.

Find the Color

Use same procedure as for "Find the Name".

1. Find the names of two colors that are in our flag.
2. Find the name of one color that we see in the sky.
3. Find the name of the color of a squirrel.
4. Find the name of the color of your tie.
5. Find the name of the color of my dress.
6. Find the name of the color of my shoes.
7. Find the name of the color of your pencil.
8. Find the name of the color of our schoolhouse.

End

Find the Name

Have the necessary words scattered about the room.

Tell the children to:

1. Find the name of the animal that gives us milk.
2. Find the name of the animal that gives us eggs.
3. Find the name of the animal that likes nuts.
4. Find the name of the animal that has long ears.
5. Find the name of the animal that gives us rides.
6. Find the name of the animal that can swim.
7. Find the name of the animal that gives us wool.
8. Find the name of the animal that catches mice.
9. Find the name of the animal that barks.
10. Find the name of the animal that gets fat.

Find the Color

Use same procedure as for "Find the Name".

1. Find the names of two colors that are in our flag.
2. Find the name of one color that we see in the sky.
3. Find the name of the color of a squirrel.
4. Find the name of the color of your tie.
5. Find the name of the color of my dress.
6. Find the name of the color of my shoes.
7. Find the name of the color of your pencil.
8. Find the name of the color of our schoolhouse.

The workbook exercises were presented during the last fifteen minutes of the daily periods set aside for this study. All of the directions were read and explained by the teacher and in many instances sample exercises were worked out at the blackboard to avoid confusion. When more than one worksheet was to be completed in one lesson, the children were instructed to have each page checked by the teacher before proceding to the next. By doing this, many incorrect concepts were checked before too great an impression was made. After each worksheet had been completed and corrected, it was filed in an envelope which was given to each child. At the end of the study the exercises were put together in book form for the children to take home.

After the workbook exercises had been completed, a vocabulary check was made to determine the number of words that were mastered during the program. At that time the children were provided with books and regular reading lessons were begun.

On January 16, 1946, six weeks after the workbook lessons had been discontinued, another check was made on the vocabulary used in the workbook to determine the number of words that had been retained by each child.

The three vocabulary checks made during this study were recorded on individual check sheets. These sheets have been exhibited in the Appendix.

2. The group made no score on the Durrell-Sullivan Reading Achievement Test. 37/ This test should not have been given since it was built for grades two to four. Several other tests were examined later and it was decided that either the Detroit 38/ or the Gates Word Recognition Tests 39/ would have been more suitable for the group.
3. The results of the Durrell-Sullivan Reading Capacity Test 40/ revealed that none of the subjects had reading achievement equal to their capacity. Table II shows the individual results of the capacity test.

37/ Durrell-Sullivan, op. cit.

38/ Detroit Word Recognition Test, Grade I. (Yonkers-on-Hudson, New York: World Book Company, 1937).

39/ Gates Primary Reading Test, Type I - Word Recognition (New York: Bureau of Publications, Teachers College, Columbia University, 1943).

40/ Durrell-Sullivan, op. cit.

The workbook exercises were presented during the last fifteen minutes of the daily periods set aside for this study. All of the directions were read and explained by the teacher and in many instances sample exercises were worked out at the blackboard to avoid confusion. When more than one worksheet was to be completed in one lesson, the children were instructed to have each page checked by the teacher before proceeding to the next. By doing this, many incorrect concepts were checked before too great an impression was made. After each worksheet had been completed and corrected, it was filed in an envelope which was given to each child. At the end of the study the exercises were put together in book form for the children to take home.

After the workbook exercises had been completed, a vocabulary check was made to determine the number of words that were mastered during the program. At that time the children were provided with books and regular reading lessons were begun.

On January 16, 1946, six weeks after the workbook lessons had been discontinued, another check was made on the vocabulary used in the workbook to determine the number of words that had been retained by each child.

The three vocabulary checks made during this study were recorded on individual check sheets. These sheets have been exhibited in the Appendix.

CHAPTER IV

ANALYSIS OF DATA

1. The average chronological age of the group was eight years and eleven months while the average mental age was six years and five months. Table I presents the individual results obtained from the Revised Stanford-Binet Intelligence Test. 36/

TABLE I

INDIVIDUAL INTELLIGENCE RATINGS OBTAINED FROM THE STANFORD-BINET INTELLIGENCE TEST.

PUPIL	C.A.	M.A.	I.Q.
1	8-10	6-7	74
2	8-9	6-3	72
3	9-0	6-5	71
4	8-11	6-4	71
5	9-1	6-5	70
6	9-0	6-2	69

36/ Terman and Merrill, op. cit.

TABLE II

INDIVIDUAL SCORES MADE ON THE
DURRELL-SULLIVAN READING CAPACITY TEST

	Test I Word Meaning			Test II Paragraph Meaning		
Pupil	Score	Grade Equivalent	Age Equivalent	Score	Grade Equivalent	Age Equivalent
1	12	1.5	6.7	5	1.7	6.10
2	11	1.4	6.5	4	1.6	6.9
3	13	1.7	6.10	6	1.8	7.0
4	9	1.3	6.4	3	1.5	6.7
5	14	1.8	7.0	8	2.0	7.2
6	15	1.9	7.1	6	1.8	7.0

The results presented in the above table indicate that there was no wide range of reading capacity within the group.

4. The group was given three individual checks on the 83 words used in the workbook. All of the words were printed on cards and were flashed for five seconds. If the correct word was not given during the five

TABLE II

INDIVIDUAL SCORES MADE ON THE
BURKELL-SULLIVAN READING CAPACITY TEST

	Test I Word Meaning			Test II Paragraph Meaning		
Pupil	Score	Grade Equivalent	Age Score	Grade Equivalent	Age Score	
1	12	1.5	8.7	5	1.7	6.10
2	11	1.4	8.5	4	1.6	6.9
3	15	1.7	8.10	6	1.8	7.6
4	9	1.3	8.4	3	1.5	6.7
5	14	1.8	7.0	8	2.0	7.2
6	15	1.9	7.1	5	1.8	7.0

The results presented in the above table indicate that there was no wide range of reading capacity within the group.

4. The group was given three individual checks on the 63 words used in the workbook. All of the words were printed on cards and were flashed for five seconds. If the correct word was not given during the five

seconds, it was assumed that it was not known. An inventory check given on October 1, 1945, before the study was begun, showed that not more than six of the words were recognized by any one child. Every pupil recognized at least three of the words. Table III shows the individual results of the inventory test.

TABLE III

SCORES MADE ON INVENTORY
VOCABULARY CHECK, OCTOBER 1, 1945

Pupil	Number of Words Recognized
1	4
2	3
3	4
4	5
5	6
6	4

The scores on the above table indicate that there was no wide range in the reading achievement of the group.

seconds, it was assumed that it was not known. An inventory check given on October 1, 1945, before the study was begun, showed that not more than six of the words were recognized by any one child. Every pupil recognized at least three of the words. Table III shows the individual results of the inventory test.

TABLE III

SCORES ON INVENTORY
VOCABULARY WORDS, OCTOBER 1, 1945

Pupil	Number of Words Recognized
1	4
2	3
3	4
4	5
5	6
6	4

The scores on the above table indicate that there was no wide range in the reading achievement of the group.

The words which were recognized by the different pupils were as follows:

A	recognized	by	6 pupils
I	recognized	by	6 pupils
red	recognized	by	5 pupils
ball	recognized	by	4 pupils
big	recognized	by	2 pupils
cat	recognized	by	1 pupil
boy	recognized	by	1 pupil
jump	recognized	by	1 pupil

5. The second vocabulary check was made on December 3, 1945 immediately after the workbook lessons had been completed. Two of the pupils recognized all of the words while one pupil recognized all but two words. The remaining pupils failed to recognize from four to seven words. Table IV shows the individual scores made on the second vocabulary check.

The words which were recognized by the different pupils were as follows:

A recognized by 6 pupils

I recognized by 6 pupils

red recognized by 5 pupils

bull recognized by 4 pupils

big recognized by 3 pupils

cat recognized by 1 pupil

boy recognized by 1 pupil

jump recognized by 1 pupil

b. The second vocabulary check was made on December 6, 1949. Immediately after the workbook lessons had been completed. Two of the pupils recognized all of the words while one pupil recognized all but two words. The remaining pupils failed to recognize from four to seven words. Table IV shows the individual scores made on the second vocabulary check.

TABLE IV

SCORES MADE ON SECOND
VOCABULARY CHECK, DECEMBER 3, 1945

Pupil	Number of Words Recognized
1	77
2	81
3	76
4	83
5	83
6	79

The words "no", "on", "house", and "horse" were the most commonly confused. Two of the pupils were unable to distinguish between the words which appeared to be alike. The words "who", "they", "eight" and "sled" seemed to be quite difficult to grasp. In one instance the word "black" was confused with "brown". In general the individual results were quite satisfactory.

6. On January 16, 1946, six weeks after the workbook exercises had been discontinued, another vocabulary check was made to determine the number of words retained

TABLE IV

SCORES MADE ON SECOND
VOCABULARY CHECK, DECEMBER 3, 1946

Pupil	Number of words recognized
1	77
2	81
3	78
4	83
5	85
6	79

The words "no", "on", "house", and "horse" were the most commonly confused. Two of the pupils were unable to distinguish between the words which appeared to be alike. The words "was", "they", "right" and "play" seemed to be quite difficult to pupils. In one instance the word "black" was confused with "brown". In general the individual results were quite satisfactory.

3. On January 16, 1946, six weeks after the workbook exercises had been discontinued, another vocabulary check was made to determine the number of words retained.

During the six week interval the group had had regular reading lessons using a basal primer. Many of the words, which had been included in the workbook, were also found in the primer. This may have accounted for the fact that an exceptionally great number of words had been retained by all of the pupils. The individual results of the third vocabulary check are shown in Table V.

TABLE V

SCORES MADE ON THE THIRD VOCABULARY CHECK, JANUARY 16, 1946

Pupil	Number of Words Recognized
1	79
2	80
3	73
4	81
5	76
6	82

During the six week interval the group had regular reading lessons daily by a local teacher. Many of the words, which had been included in the workbook, were also found in the primer. This may have accounted for the fact that an exceptionally great number of words had been retained by all of the pupils. The individual results of the third vocabulary check are shown in Table V.

TABLE V

SCORES MADE ON THE THIRD
VOCABULARY CHECK, JANUARY 15, 1946

Pupil	Number of words recognized
1	79
2	80
3	72
4	61
5	76
6	52

The above table indicates that the greatest score was made by Pupil 6 who recognized all but one of the total number of words. It was interesting to note that this pupil had the lowest mental age and I.Q. of the group. The pupil who made the least progress had the second highest mental age of the group. The individual check sheets exhibited in the Appendix give the complete data on the three vocabulary checks.

7. The lessons and exercises used to develop the visual and auditory recognition of sixteen initial consonants were quite satisfactory. Two-thirds of the group were able to recognize all of the consonants at the end of eight weeks. The remaining third of the group recognized seventy-five per cent of the consonants. Errors were made on the letters "b", "d", "g", and "p".

8. All of the workbook exercises were completed by the group. The exercises which appealed to all of the children were those which required cutting, coloring, and pasting. The exercises which required manual tracing seemed to be uninteresting and it is doubtful if they were of any specific value. Many of the exercises such as those found on the last two pages of the workbook, would have been of great value if they had been used throughout the workbook.

9. The use of games, contests, and matching exercises were

The above table indicates that the greatest score was made by Pupil 6 who recognized all but one of the total number of words. It was interesting to note that this pupil had the lowest mental age and I.Q. of the group. The pupil who made the least progress had the second highest mental age of the group. The individual check sheets exhibited in the Appendix give the complete data on the three vocabulary checks.

7. The lessons and exercises used to develop the visual and auditory recognition of sixteen initial consonants were quite satisfactory. Two-thirds of the group were able to recognize all of the consonants at the end of eight weeks. The remaining third of the group recognized seventy-five per cent of the consonants. Errors were made on the letters "b", "d", "g", and "p".

8. All of the workbook exercises were completed by the group. The exercises which appealed to all of the children were those which required cutting, coloring, and pasting. The exercises which involved manual training seemed to be uninteresting and it is doubtful if they were of any specific value. Many of the exercises such as those found on the last two pages of the workbook, would have been of great value if they had been used throughout the workbook.

9. The use of games, contests, and matching exercises were

valuable in motivating the lessons.

10. The following pages contain the weekly teaching plan and the workbook in complete form.

WEEKLY TEACHING PLAN

First and Second Week

Introduce and review:

red	purple	three	eight
orange	brown	four	nine
yellow	black	five	ten
green	one	six	the
blue	two	seven	

Workbook pages 38 - 53

Third Week

Review words previously taught.

Introduce and review:

color	goat	rabbit	cat
pig	horse	sheep	
squirrel	duck	dog	
cow	bird	chicken	

Workbook pages 53 - 65

Fourth Week

Review words previously taught.

Introduce and review:

mother	girl	car
father	barn	house
baby	tree	book
boy	boat	

Workbook pages 65 - 76

Fifth Week

Review words previously taught.

WEEKLY TEACHING PLAN

First and Second Week

Introduce and review:

red	purple	three	eight
orange	brown	four	nine
yellow	black	five	ten
green	one	six	the
blue	two	seven	

Workbook pages 58 - 63

Third Week

Review words previously taught.

Introduce and review:

color	goat	rabbit	cat
pig	horse	sheep	
squirrel	duck	dog	
cow	bird	chicken	

Workbook pages 62 - 65

Fourth Week

Review words previously taught.

Introduce and review:

mother	girl	car
father	barn	house
baby	tree	book
boy	coat	

Workbook pages 66 - 73

Fifth Week

Review words previously taught.

Introduce and review:

ball	balloon	A
box	chair	sled
table	I	kite
clock	see	bed

Workbook pages 76 - 96

Sixth Week

Review words previously taught.

Introduce and review:

it	she	in
this	am	under
they	by	on
he is		

Workbook pages 96 - 140

Seventh Week

Review words previously taught.

Introduce and review:

draw	no	me
make	play	big
here	can	little
yes	for	

Workbook pages 140 - 149

Eighth Week

Review words previously taught.

Introduce and review:

jump	who
and	what
run	find

Workbook pages 149 - 172

General review of all words.

Introduce and review:

ball	balloon	A
box	chair	red
table	I	kite
clock	see	bed

Workbook pages 78 - 96

<u>Sixth Week</u>

Review words previously taught.

Introduce and review:

it	are	in
this	am	under
they	by	on
he is		

Workbook pages 96 - 140

<u>Seventh Week</u>

Review words previously taught.

Introduce and review:

draw	no	me
make	play	big
here	can	little
yes	for	

Workbook pages 140 - 149

<u>Eighth Week</u>

Review words previously taught.

Introduce and review:

jump	who
and	what
run	find

Workbook pages 149 - 172

General review of all words.

Reference Chart

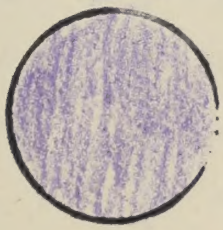
Red red

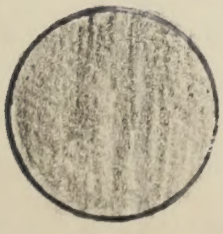
Orange orange

Yellow yellow

Green green

Blue blue

Purple  purple

Black  black

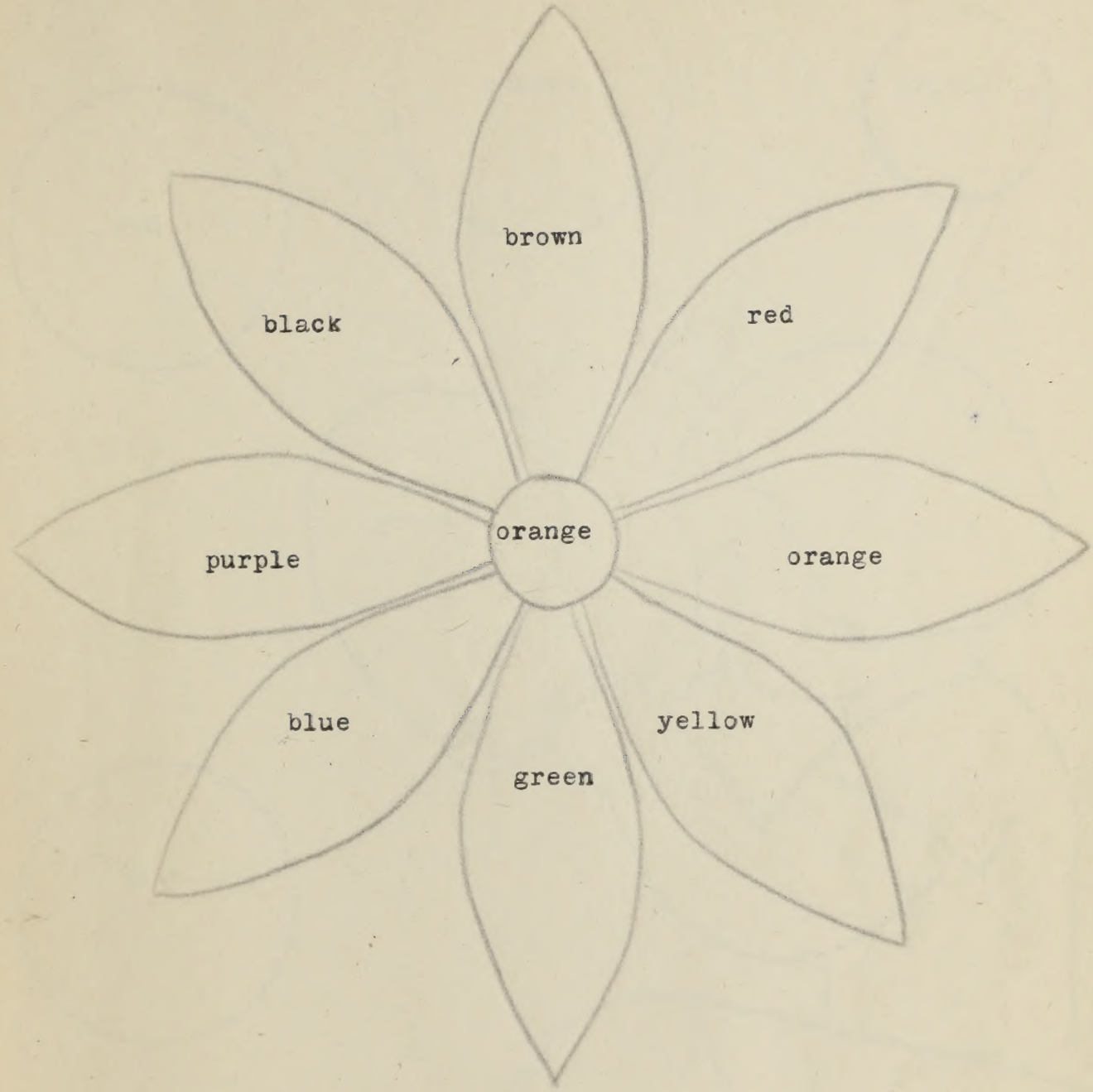
Brown brown

Put a circle around the words that are like the first one in each box.

red	orange	yellow	green
blue	green	red	green
red	yellow	yellow	blue
green	orange	red	black
blue	blue	green	orange
red	orange	blue	blue
red	orange	yellow	green
blue	blue	blue	orange
red	orange	yellow	green
brown	black	purple	blue
blue	purple	brown	black
red	yellow	brown	blue
green	purple	black	black
blue	orange	blue	yellow
blue	red	brown	red
yellow	purple	green	yellow
blue	green	yellow	black
orange	orange	blue	blue
red	purple	brown	black
blue	red	brown	blue

Color and cut out the circles. Paste them in the right places on the page that comes before this one.

red	orange	green	blue	yellow
orange	green	blue	orange	purple
blue	purple	red	yellow	brown
yellow	brown	green	purple	black
yellow	red	black	brown	
orange	blue	black	purple	
red	green	brown	black	



Each part of the flower is a different color.

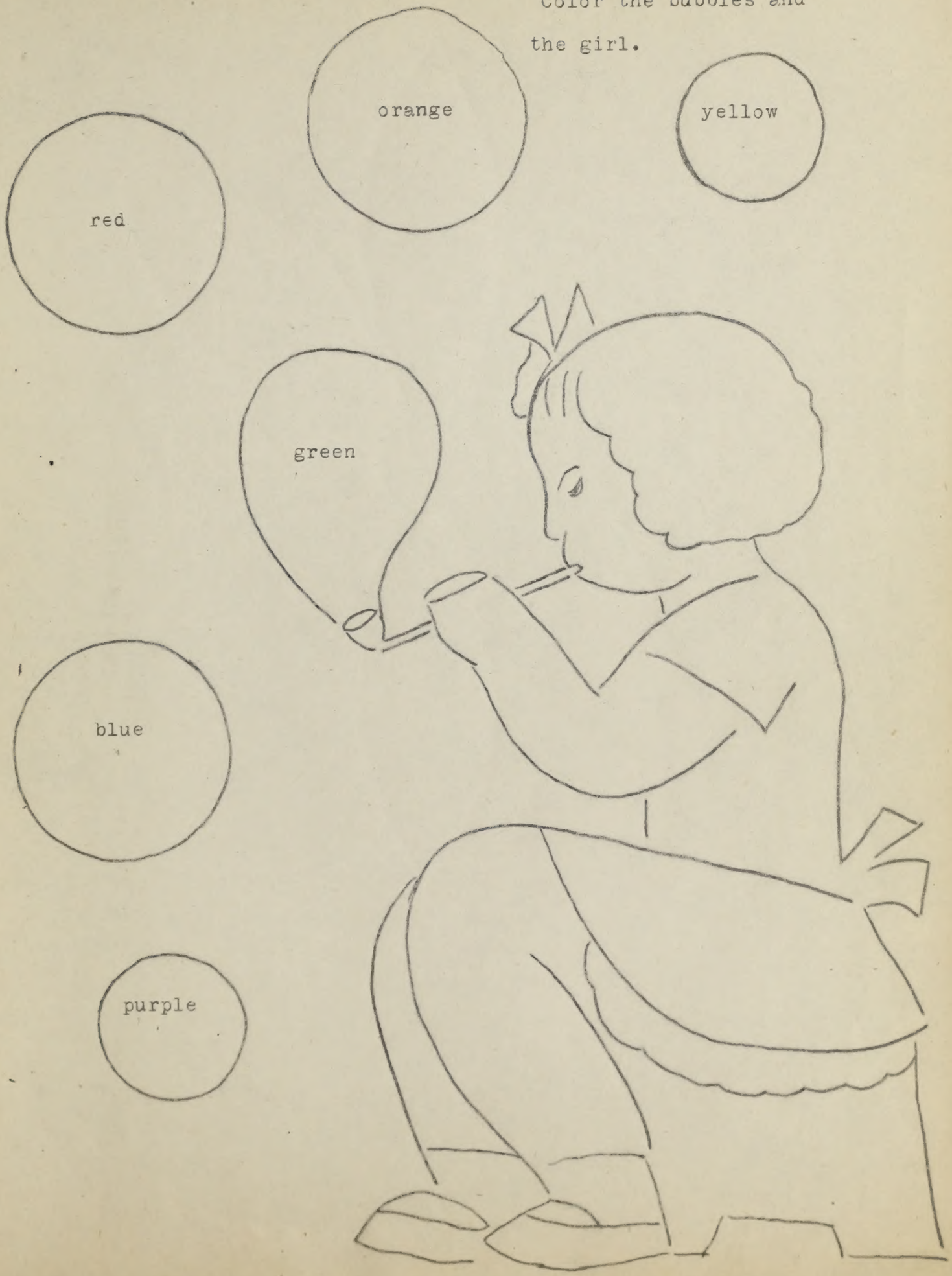
Read to find out how to color the flower.

Color the circles.

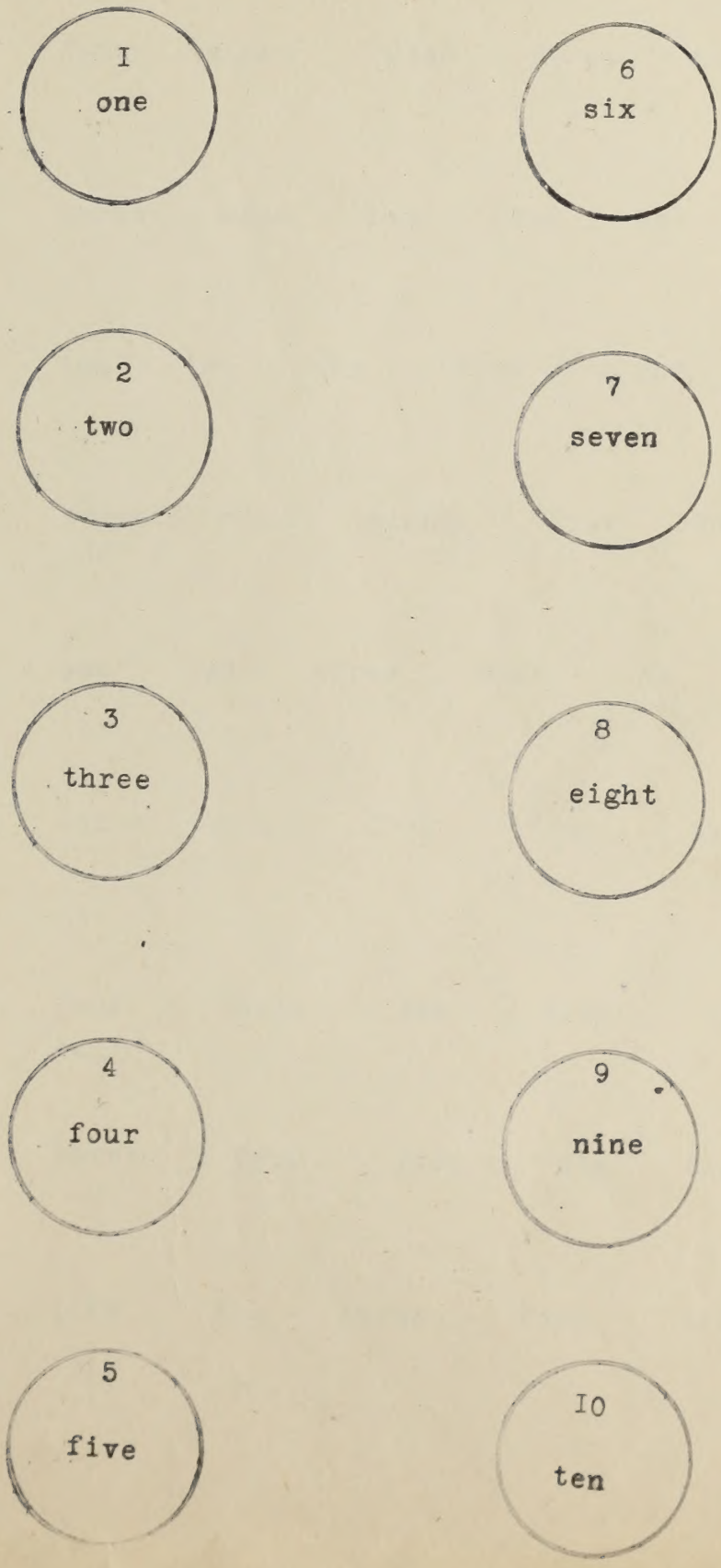
red				
orange				
yellow				
green				
blue				
purple				
black				
brown				

Go to the next page.

Color the bubbles and the girl.



Reference Chart



Make a ring around the word that is like the one in the box.

six	four	seven	five	three	six
nine	four	eight	nine	seven	three
one	three	nine	two	four	one
ten	ten	two	six	three	eight
eight	seven	nine	eight	four	one
two	one	two	three	four	one
seven	six	seven	five	four	three
five	four	three	two	five	six
three	three	four	five	six	two
four	five	six	three	four	seven

Draw lines between the words that are alike. The first one is done for you.

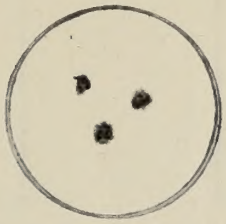
one	nine
three	two
six	eight
nine	three
two	six
four	four
three	seven
eight	eight
five	three
seven	two
ten	one
eight	ten
three	five
two	three

Draw a line from the word to the number.

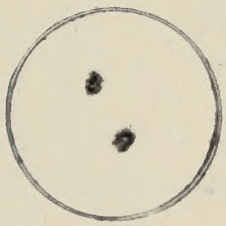
The first one is done for you.

one	2
nine	4
six	6
three	8
eight	10
four	1
two	3
five	5
seven	7
ten	9

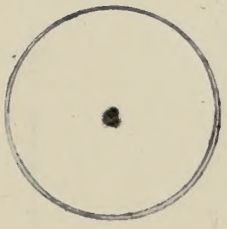
Put a line under the word that tells how many dots there are in each circle.



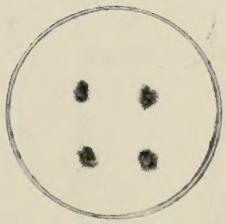
two
three
five



ten
three
two

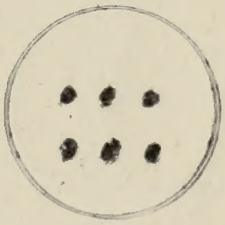


six
one
ten



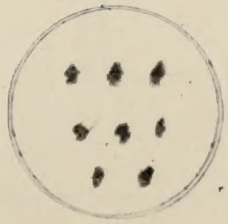
seven
five
four

six
seven
eight



six
seven
nine

eight
nine
six



six
eight
ten

four
five
six

three
two
ten

Cut out the words below and paste them in the right boxes.

3	7	8
1	4	2
10	6	9
5		

one	three	four
two	five	seven
nine	eight	
six	ten	

Put a ring around each word that is like the one in the box at the top of each row.

The	the
Those	those
This	this
The	the
Them	them
That	that
The	they
They	the
The	the
These	these
Then	then
The	the
The	the
Thy	thy
The	the

Boston University
School of Education
Library

To the teacher: Hold up cards with the words "The" and "the" printed on them. Direct the children to find these words in the sentences below and to put a ring around them every time they find them.

The cat ate the mouse.

The dog ran after the cat.

The boy gave the ball to the girl.

The baby likes the red ball.

The robin helps the farmer.

The girl played with the doll.

The boy tried to fly the kite.

The girl went to the store.

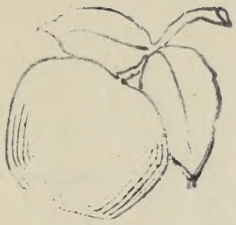
The car went off the road.

The children played in the house.

The fire burned the house.

The horse pulled the wagon.

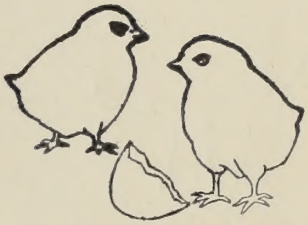
Color



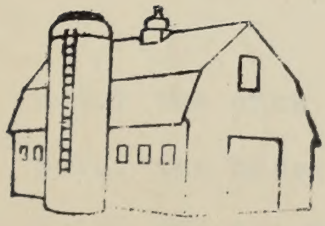
Color red

Color blue

Color orange



Color yellow



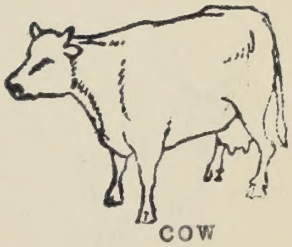
Color green

Color purple

Something to Color

pig

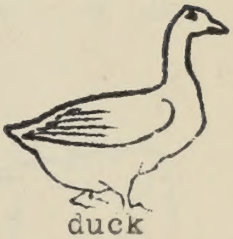
squirrel



cow

goat

horse



duck

Color the duck yellow.

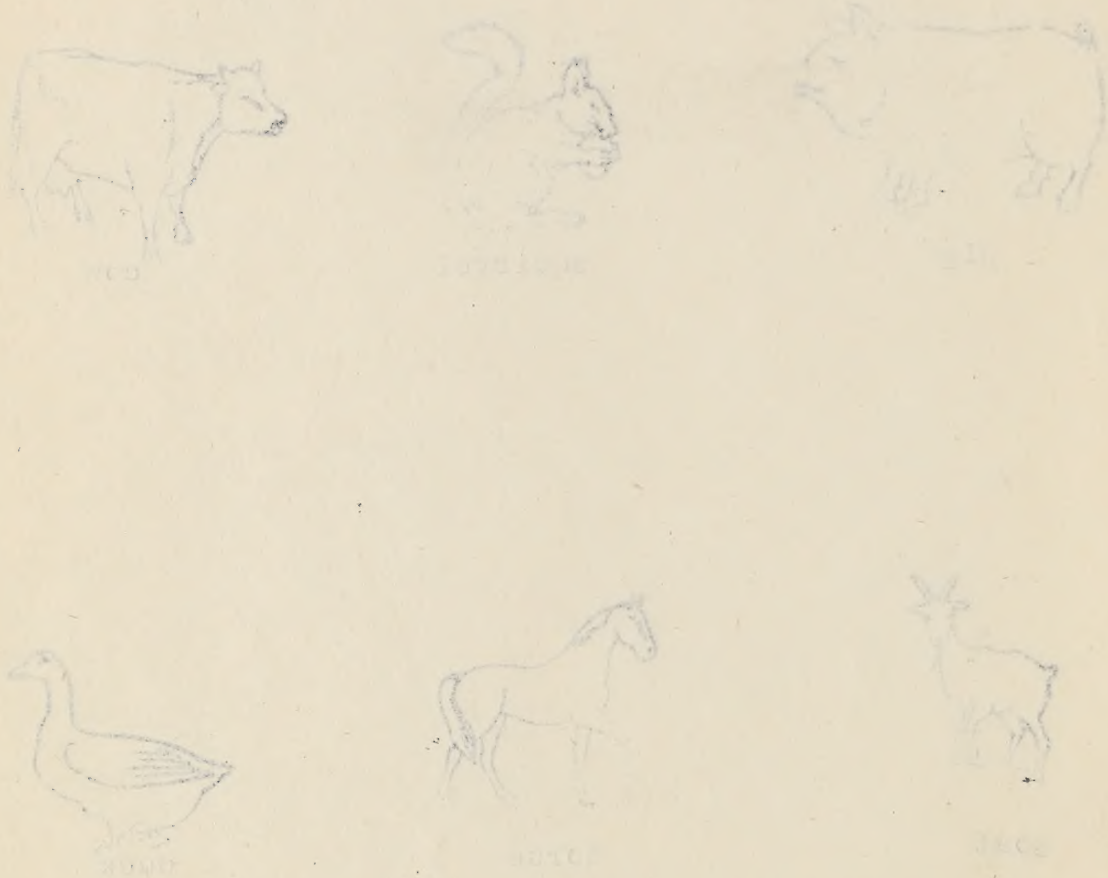
Color the horse black.

Color the cow brown.

Color the squirrel brown.

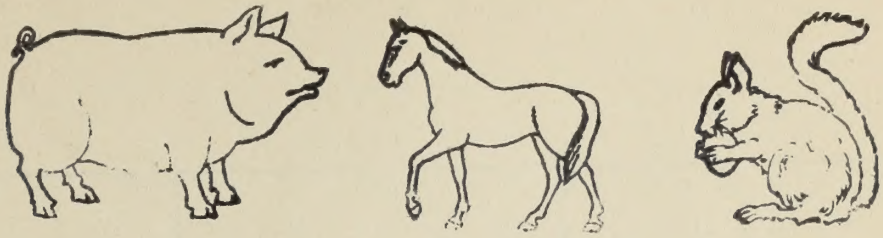
Color the pig orange.

Color the goat brown.

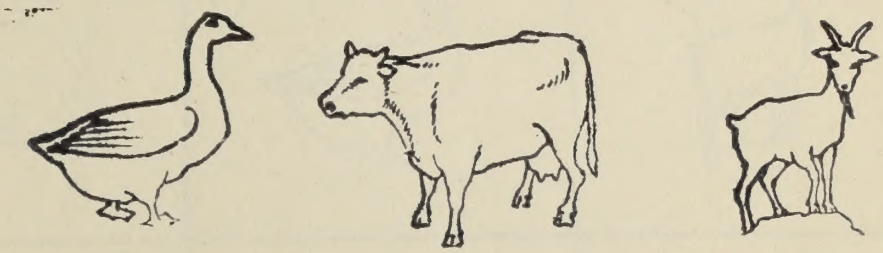


Look at the word in each row. Find the picture that goes with it. Put an X on it.

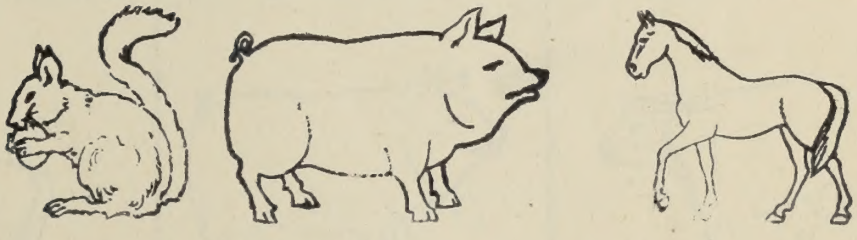
horse



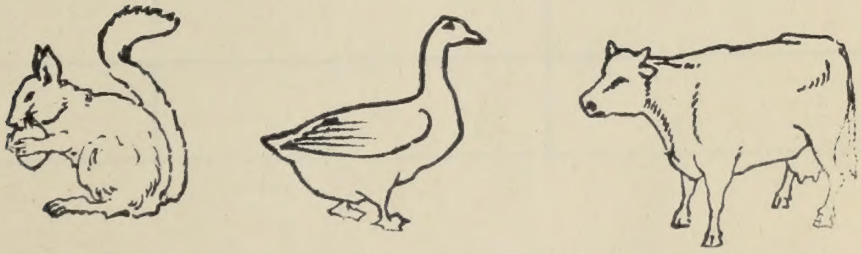
cow



squirrel

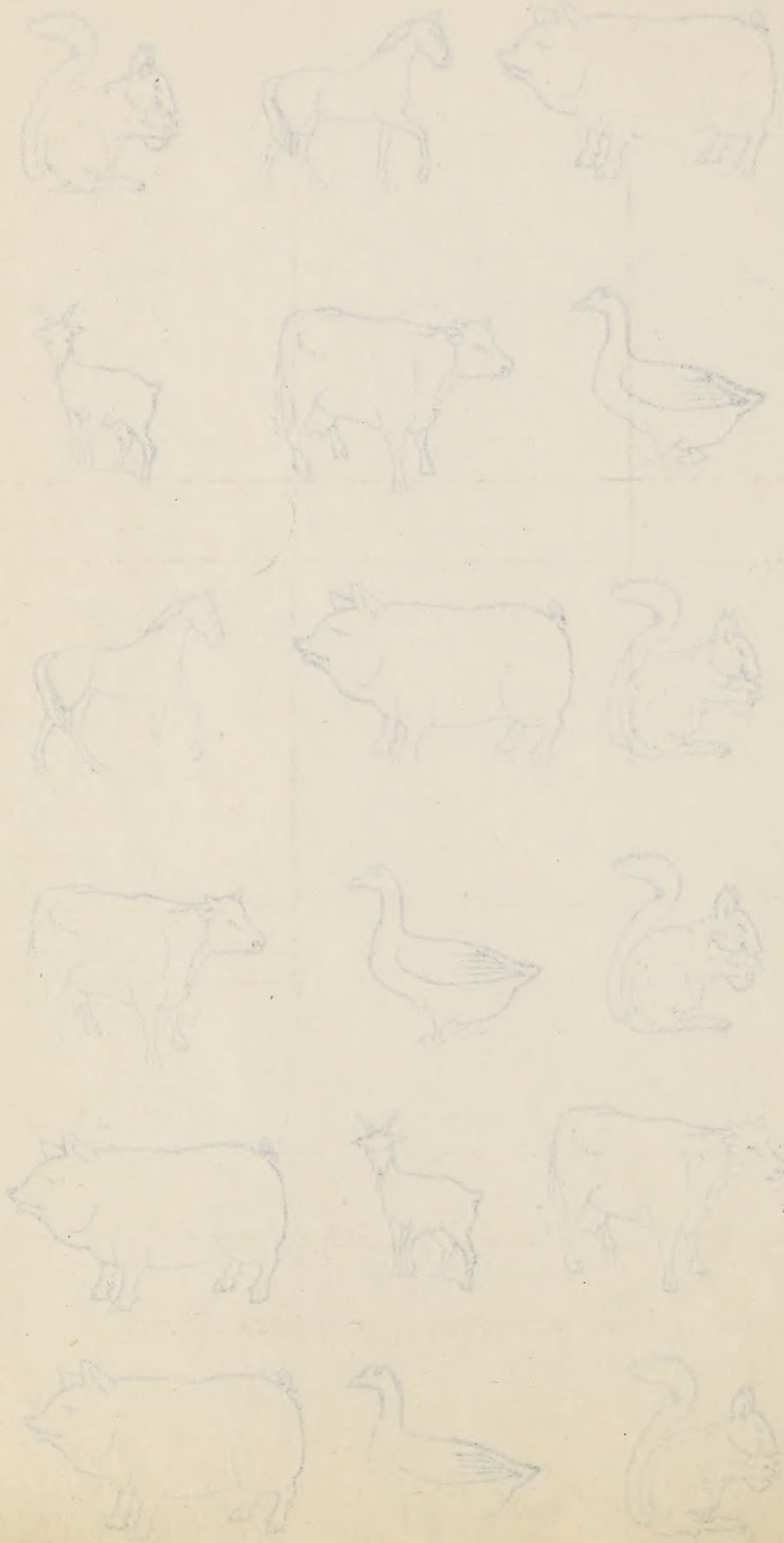


duck

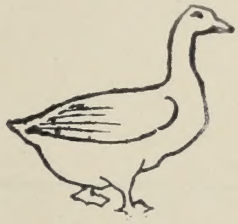
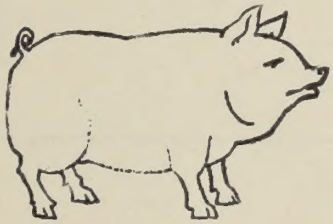
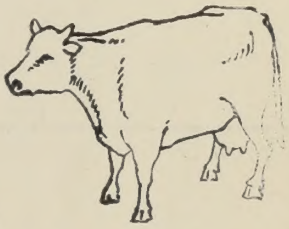


goat

pig



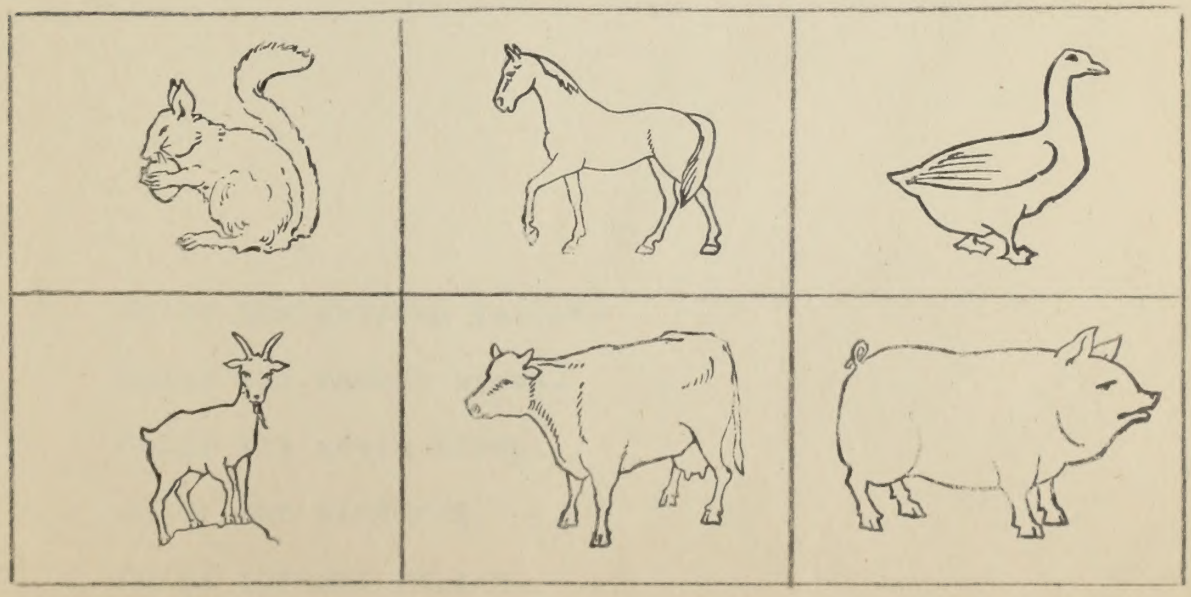
Cut out the words below. Paste them under the right pictures. Color the pictures.

pig	cow	horse
squirrel	goat	duck

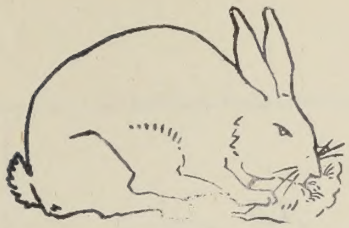
Cut out the pictures below. Paste them in the right boxes.

pig	squirrel	cow
goat	horse	duck



Something to Color

bird



rabbit

sheep

dog

chicken

cat

Color the chicken yellow.

Color the rabbit brown.

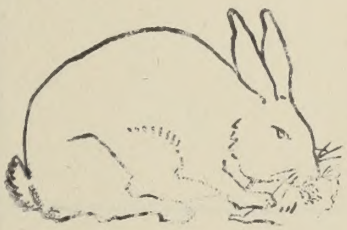
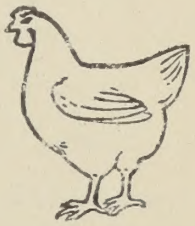
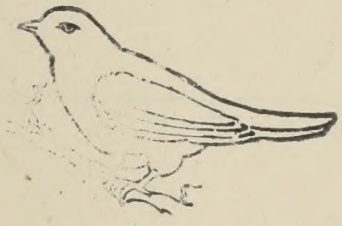
Color the sheep brown.

Color the bird red.

Color the cat yellow.

Color the dog black.

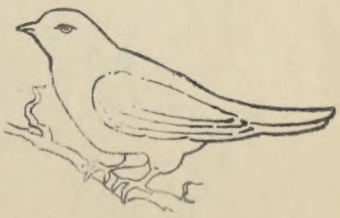
Cut out the words below. Paste them under the right pictures. Color the pictures.

bird	rabbit	sheep
dog	chicken	cat

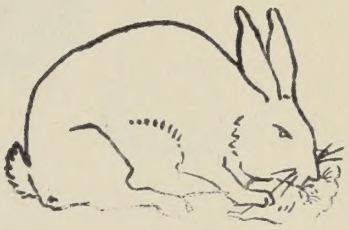
Cut out the pictures below. Paste them in the right boxes. Color the pictures.

bird	dog	rabbit
sheep	chicken	cat



Draw a line from each word to the correct picture. Color the pictures.

dog



bird

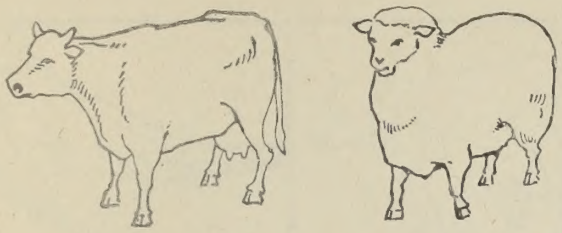
rabbit

sheep

chicken

cat

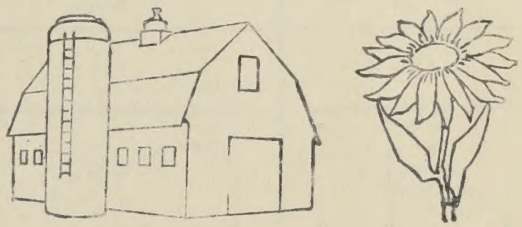
Look at the letter under each box. Find a picture the name of which begins with that letter. Draw a line from the picture to the letter. Color the pictures.



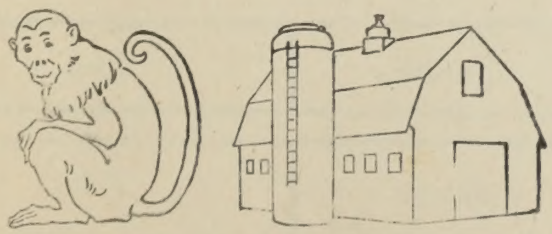
c

t

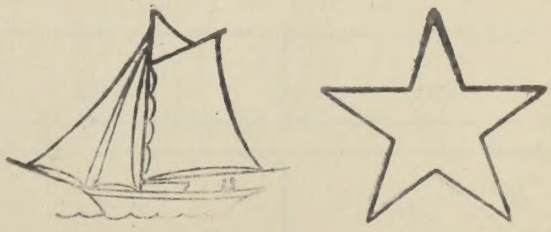
g



b

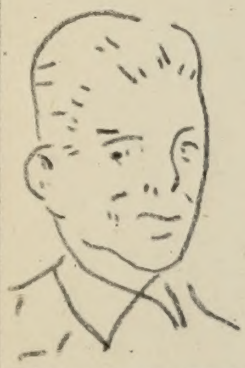
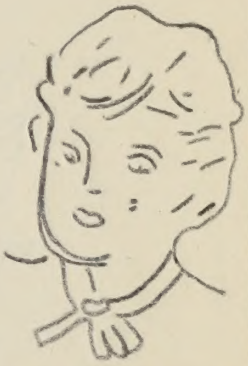


m

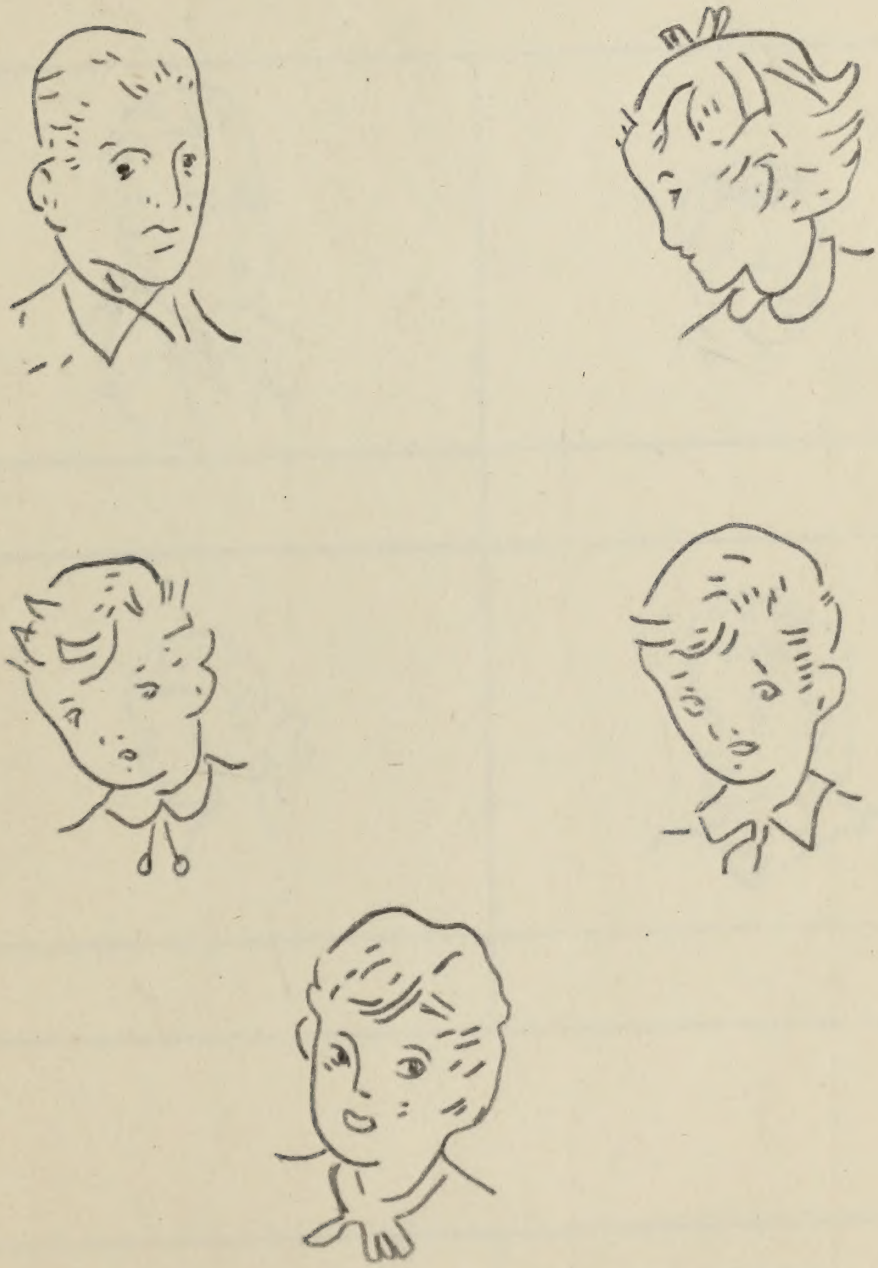


s

Draw a red line through the words which do not match the pictures.

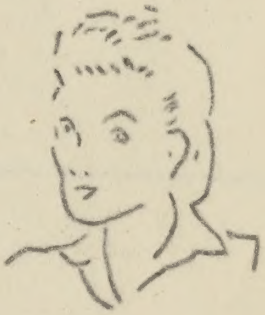
Father	Baby	Girl	Boy	Mother
				
Mother	Baby	Boy	Boy	Father
Father	Baby	Baby	Girl	Mother
Baby	Girl	Girl	Boy	Mother
Father	Mother	Girl	Baby	Boy

Cut out the words below. Paste them under the right pictures.



Mother	Father	Baby	Boy	Girl

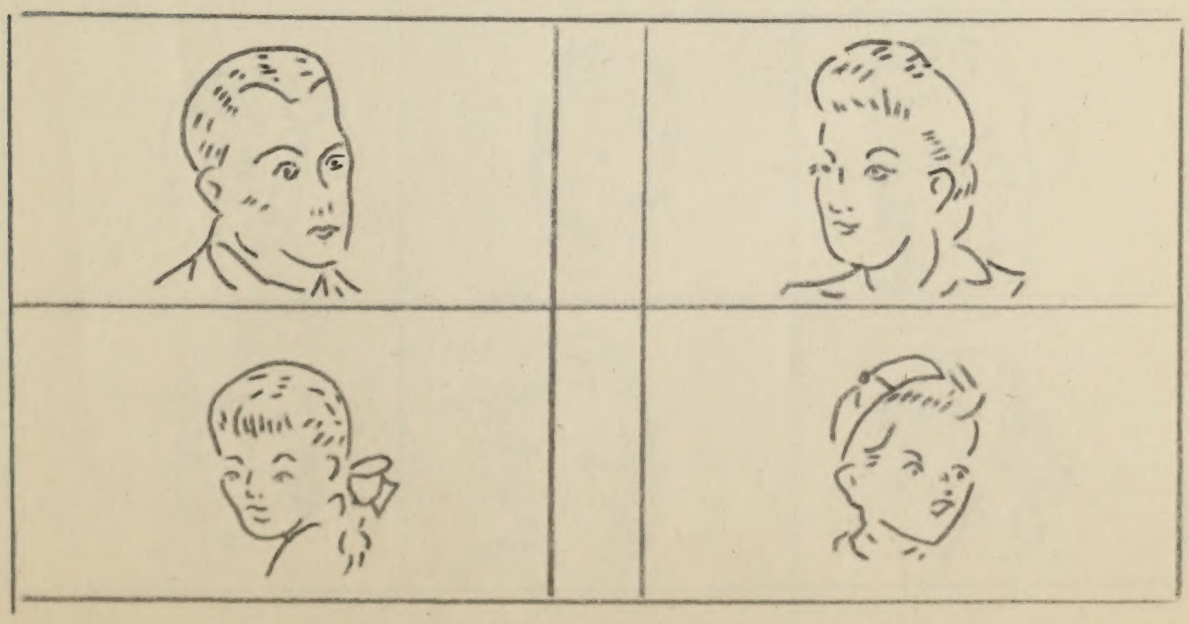
Cut out the words below. Paste them in the right boxes. Color the pictures.

Mother	Father
Boy	Girl

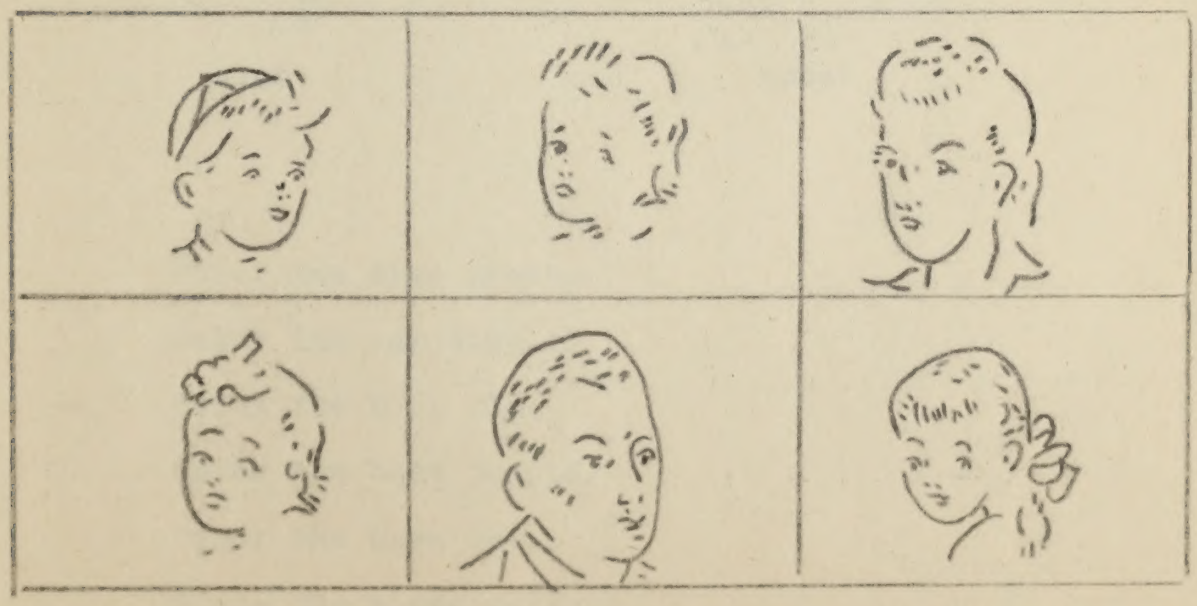
Cut out the pictures below. Paste them in the right boxes.

Mother		Father
Boy		Girl

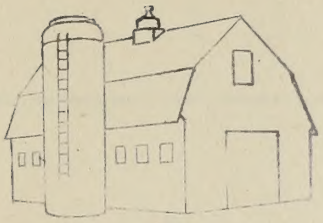


Cut out the pictures below. Paste them in the right boxes.

Mother	Baby	boy
girl	baby	Father



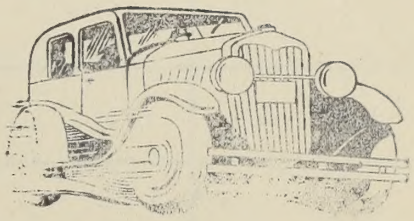
Something to Color



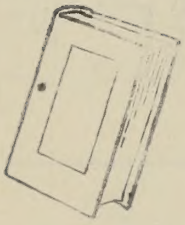
barn

tree

boat



car



book

house

Color the tree green.

Color the car blue.

Color the book red.

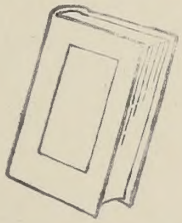
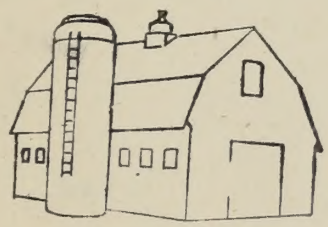
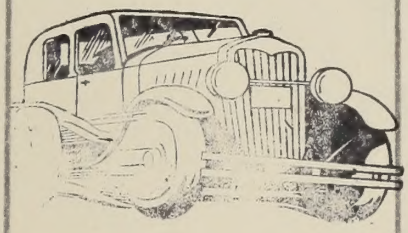
Color the boat purple.

Color the barn red.

Color the house yellow.

Cut out the words below. Paste them in the right boxes.

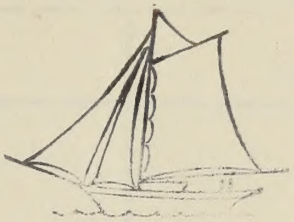
Color the pictures.

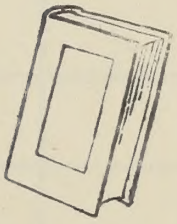
house	tree	car
boat	barn	book

Draw a line from each word to the right picture. Color the pictures

house



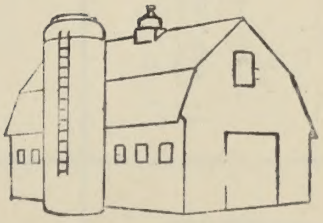
book



barn

car

boat

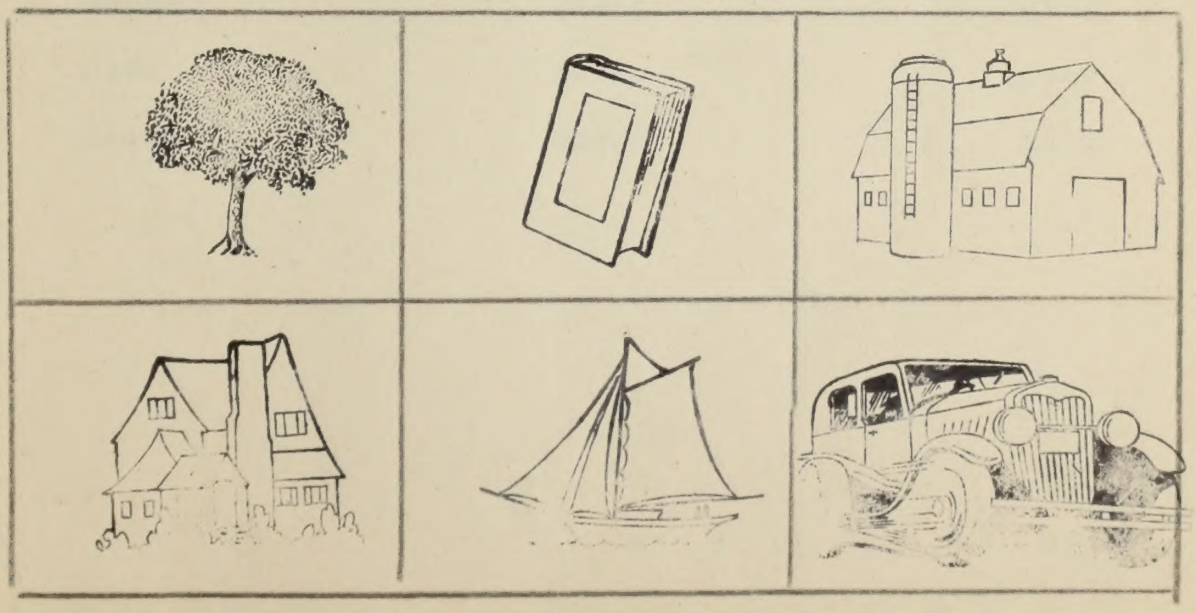


tree

Cut out the pictures below. Paste them in the right boxes.

Color the pictures.

house	tree	boat
book	car	barn



Draw a ring around the right word for each picture.

Color the pictures.

cow

cat

car

bird

book

boat

bird

boat

book

horse

have

house

sleep

sweep

sheep

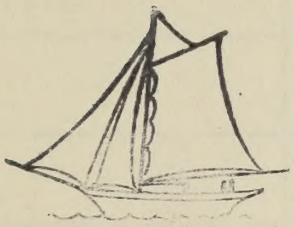
girl

goat

good

Draw a ring around the right word for each picture.

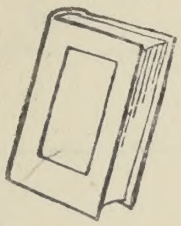
Color the pictures.



bird

boat

book



bird

book

boat

sheep

sleep

squirrel

rabbit

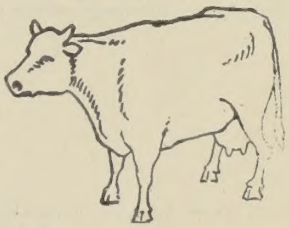
horse

house

tree

ten

three



cow

car

cat

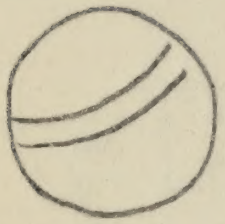
START

Cut out the words below. Paste them in the right boxes.

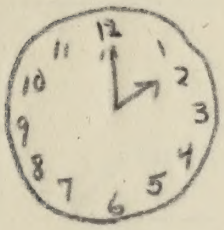
ball	box	table
clock	balloon	chair

ball	clock	box
box	table	table
clock	ball	clock
balloon	chair	balloon
chair	balloon	ball
table	box	chair

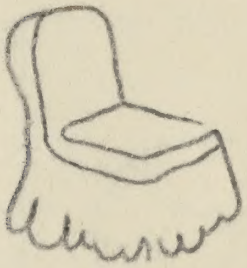
Something to Color



ball

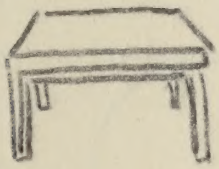


clock

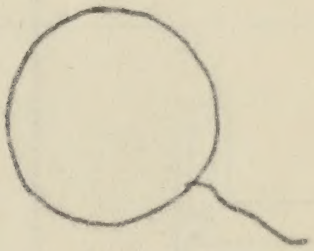


chair

box



table



balloon

Color the balloon red.

Color the table brown,

Color the box green.

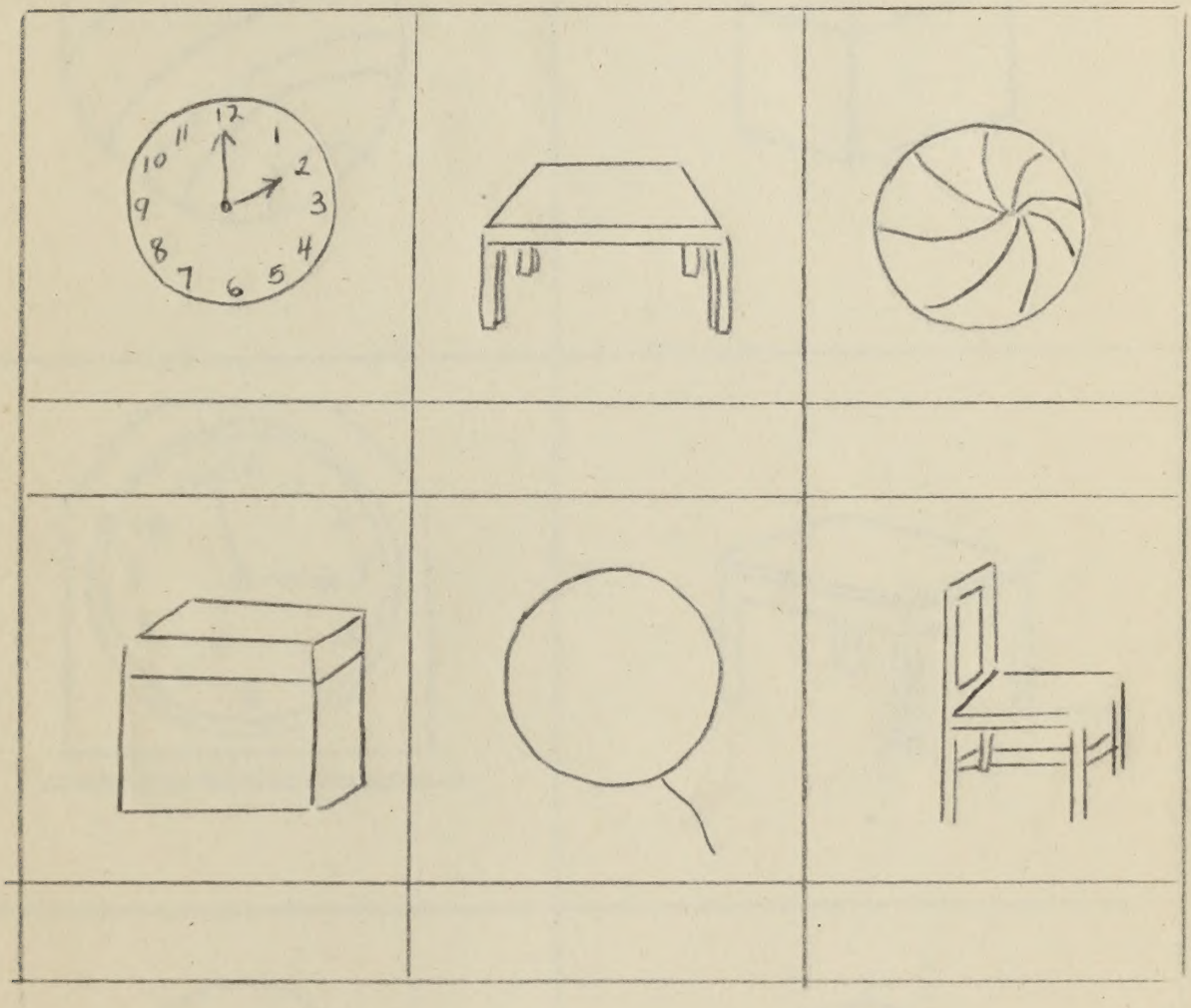
Color the clock yellow.

Color the chair orange.

Color the ball red.

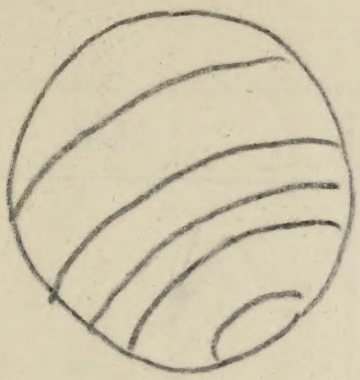
Cut out the words below. Paste them in the right boxes.

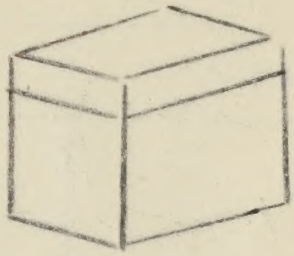
Color the pictures.

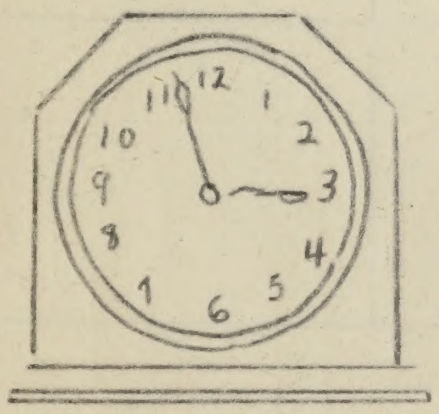


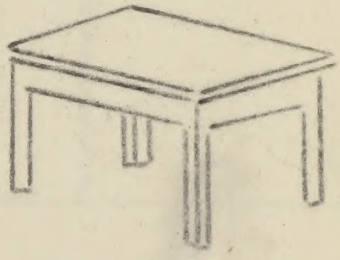
ball	box	clock
chair	table	balloon

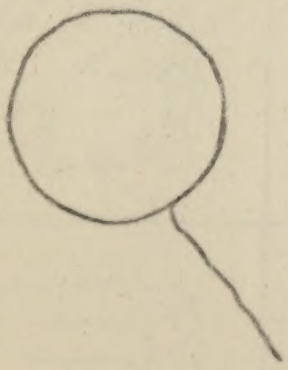
Cut out the words below. Paste them under the right picyures.

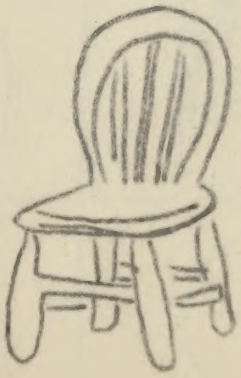








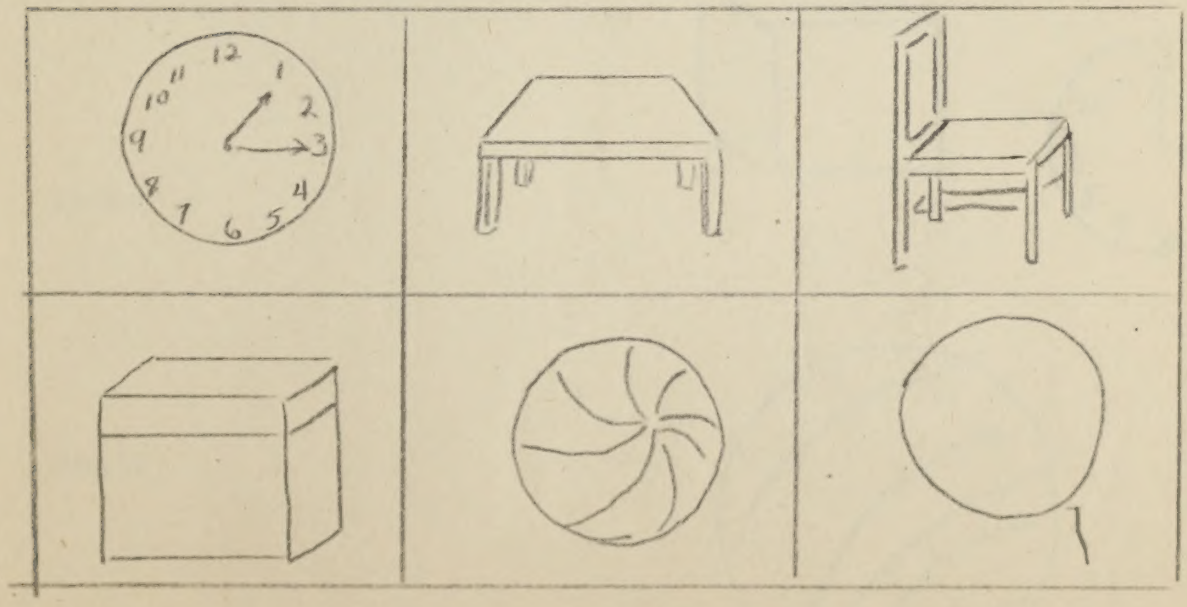




box	balloon	clock	table	chair	ball

Cut out the pictures below. Paste them in the right boxes. Color the pictures.

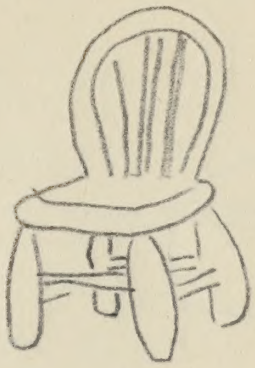
ball	box	clock
chair	table	balloon



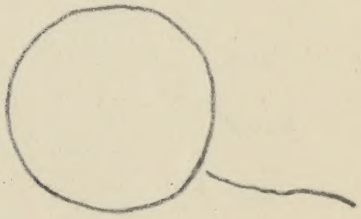
Draw lines from the words to the right pictures.

Color the pictures.

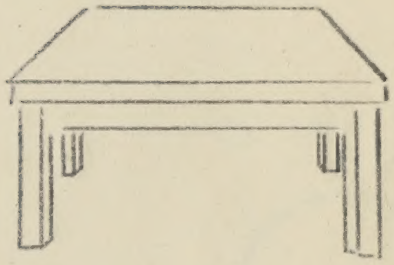
ball



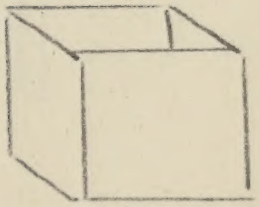
balloon

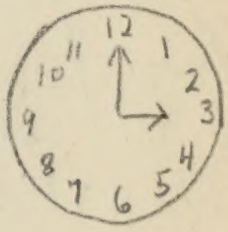


box



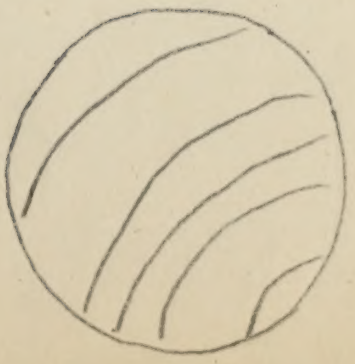
clock





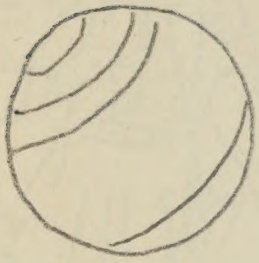
table

chair



Draw a ring around the right word for each picture.

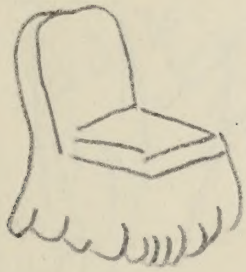
Color the pictures.



box

ball

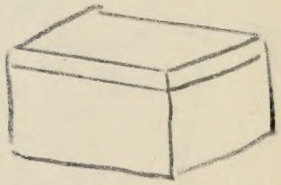
boy



clock

chair

table



box

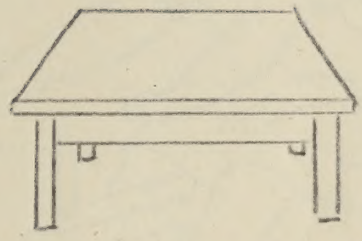
ball

boy

chair

clock

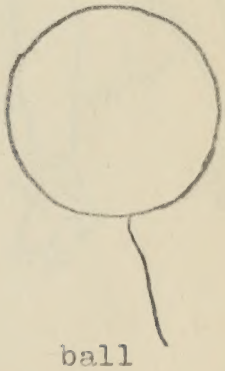
table



table

chair

clock



ball

doll

balloon

Read about the family. Color the picture.

See Father.

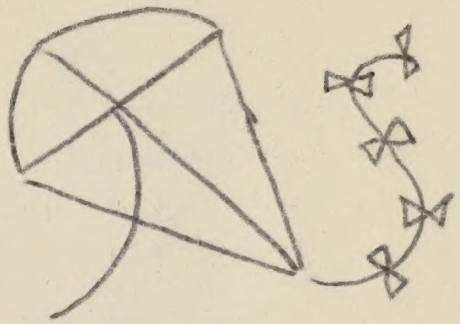
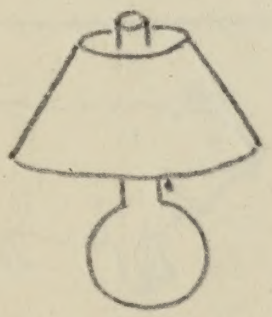
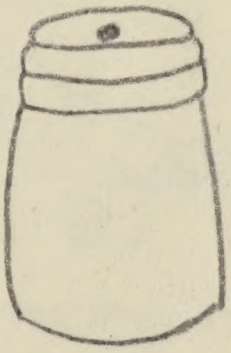
See Mother.

See Baby.

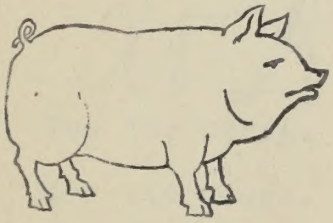
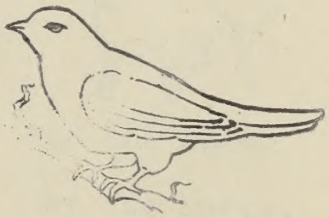
See the girl.

See the boy.

Put a circle around the letter which the name of the picture begins with.

	
s n t	p n k
	
b c l	j m r
t p s	s w d

Put a line under the true sentences. Color the pictures.

 See the hen. See the house. See the horse.	 See the dog. See the drum. See the chicken.
 See the pig. See the dog. See the girl.	 See the barn. See the bird. See the ball.
 See the dog. See the boy. See the rabbit.	 See the tree. See the boy. See the cow.

Put a line under the true sentences. Color the pictures.

See the boy.

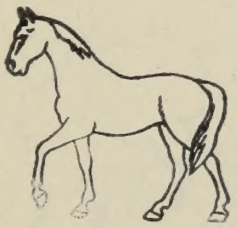
See the dog.

See the duck.

See the cow.

See the dog.

See the cat.



See the horse.

See the house.

See the sheep.

See the barn.

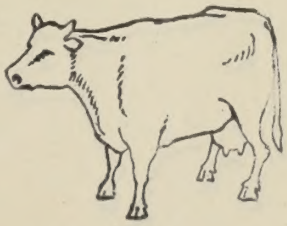
See the horse.

See the sheep.

See the duck.

See the goat.

See the dog.



See the cow.

See the dog.

See the cat.

Put a line under the true sentences. Color the pictures.

See the dog.

See the duck

See the ball.

See the ball.

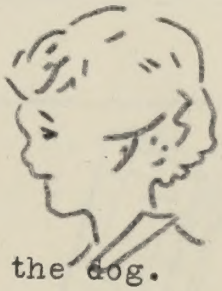
See the duck.

See the cat.

See the horse.

See the squirrel.

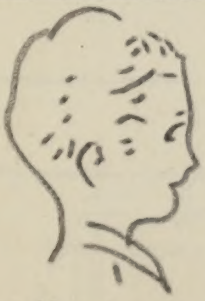
See the sheep.



See the dog.

See the girl.

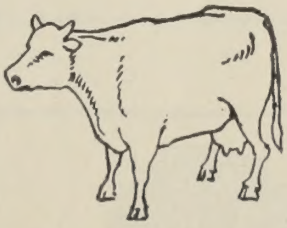
See the cow.



See the boy.

See the dog.

See the cat.



See the cow.

See the dog.

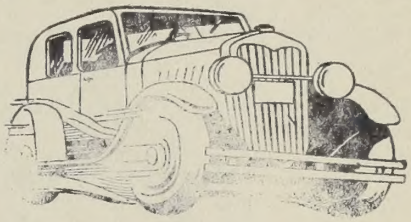
See the cat.

Draw a line under the words that tell what you see in each picture.

I see a book.

I see a house.

I see a barn.



I see a tree.

I see a car.

I see a boat.

I see a book.

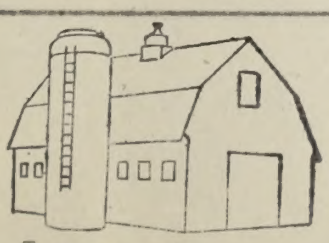
I see a barn.

I see a boat.

I see a house.

I see a boat.

I see a book.



I see a barn.

I see a boat.

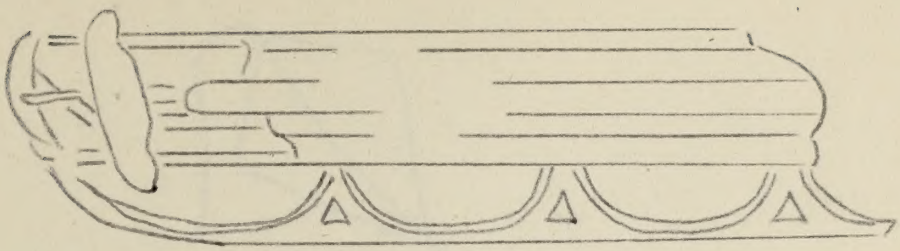
I see a house.

I see a car.

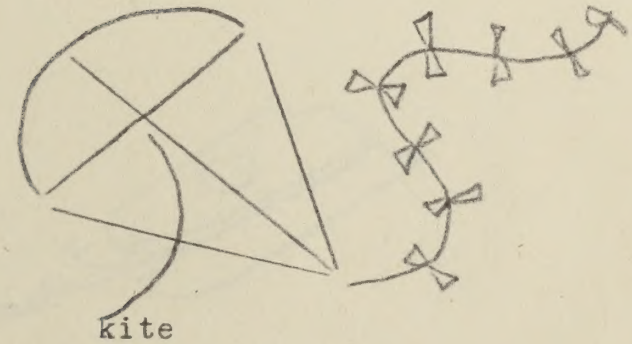
I see a tree.

I see a boat.

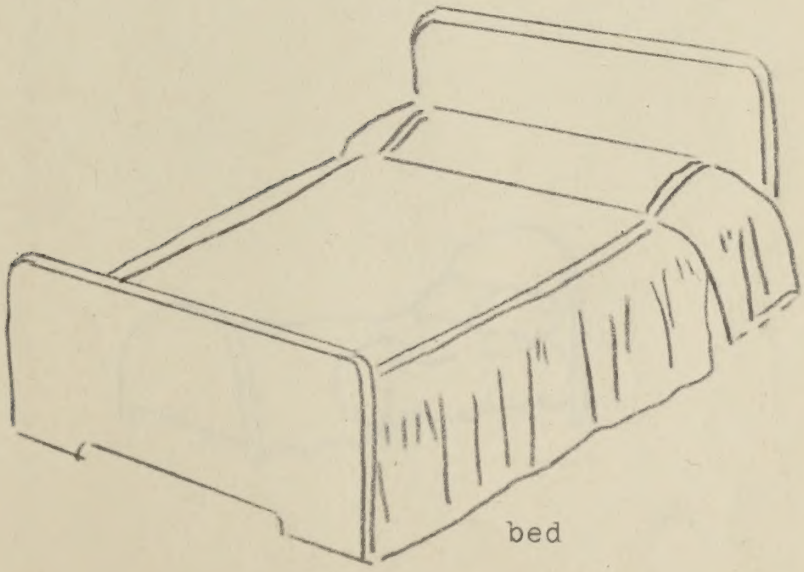
Something to Color



sled



kite



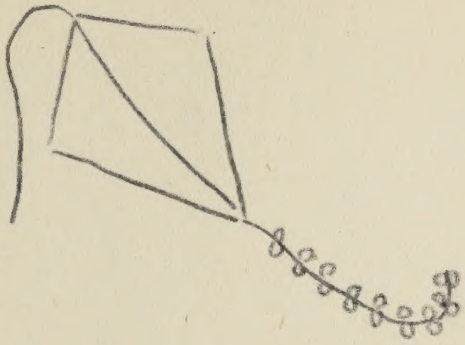
bed

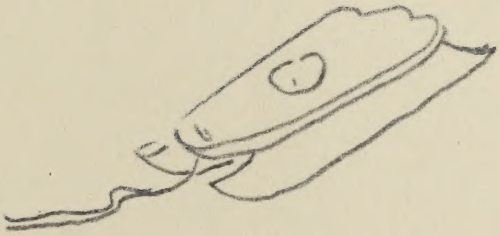
Color the kite green.

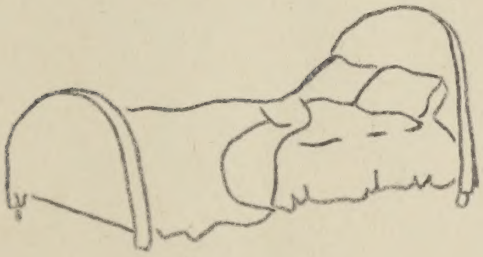
Color the bed blue.

Color the sled red.

Cut out the words below. Paste them under the right pictures.







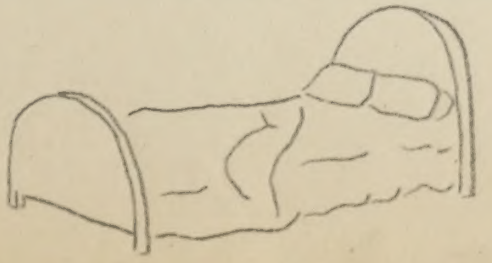
sled	bed	kite

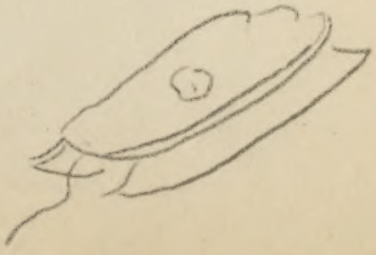
Cut out the pictures below. Paste them under the right words.

bed

kite

sled





Cut out the words on the next page. Paste them in the correct boxes on this page.

barn	car	house	boat	tree

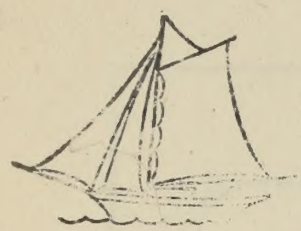
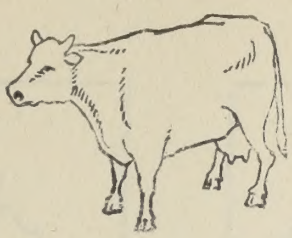
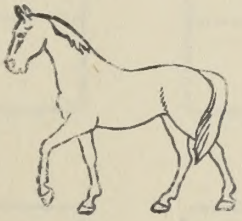
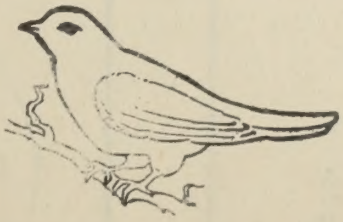
chair	bed	book	ball	table

Draw lines between the words that are alike.

cat	bird
rabbit	cat
chicken	book
dog	rabbit
sheep	tree
bird	chicken
boy	house
book	kite
tree	sheep
barn	dog
house	boy
sled	barn
bed	sled
kite	bed

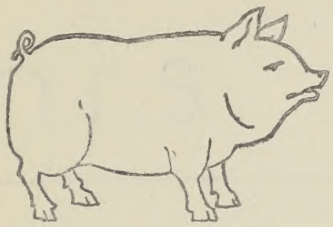
barn	chair	boat	house	car
car	house	barn	chair	boat
ball	barn	book	book	house
book	bed	chair	tree	table
boat	book	ball	boat	bed
chair	car	barn	ball	ball
table	ball	tree	bed	tree
ball	tree	bed	table	table
car	boat	car	barn	book
tree	table	bed	book	car
bed	chair	house	tree	chair
bed	tree	table	car	barn

Put a circle around the letter that the name of the picture begins with.

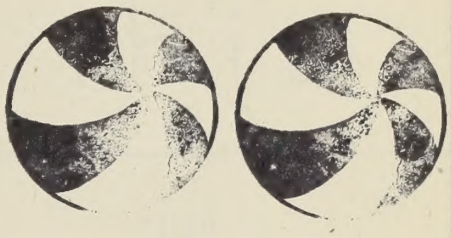
		
t m b	c b r	h g t
		
s d p	n s h	d f t
p h t	m g f	w r c
		
s p r	b l s	t n s

Draw a ring around the word that fits each picture.

Color the pictures.



pig pigs



balls ball

girl girls

trees tree

barn barns

houses house

Put a box around each word that is like the one in the box at the top.

This	this
The	this
They	those
This	these
This	this
That	the
These	this
This	that
This	this
Those	this
They	that
This	this
That	this

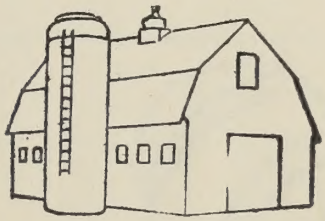
Read and Do

This is a house.

Color it yellow.

This is a barn.

Color it red.



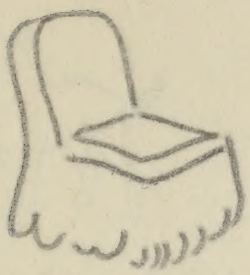
This is a tree.

Color it green.

This is a rabbit.

Color it brown.

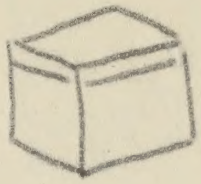
Underline the true sentences. Color the pictures.



This is a ball

This is a balloon.

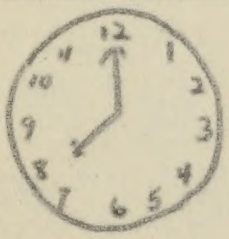
This is a chair.



This is a box.

This is a clock.

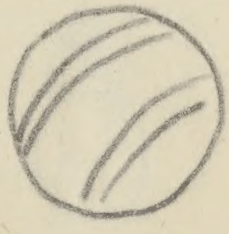
This is a chair.



This is a ball.

This is a clock..

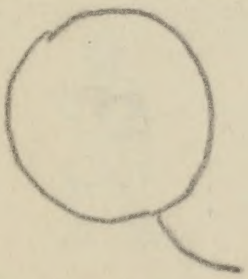
This is a box.



This is a box.

This is a clock.

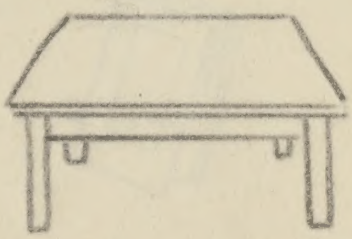
This is a ball.



This is a chair.

This is a balloon.

This is a ball.



This is a table.

This is a chair.

This is a clock.

Underline the true sentences.

This is a dog.

This is a boy.

This is a house.

This is a dog.

This is a cow.

This is a sheep.

This is a horse.

This is a barn

This is a house.

This is a bird.

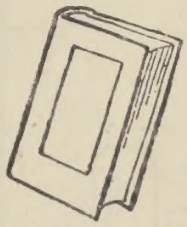
This is a girl.

This is a boy.

This is a boy.

This is a dog.

This is a cow.



This is a ball.

This is a boy.

This is a book.

Draw a line from each picture to the right sentences.

Color the pictures.

This is dog.

This is a girl.

This is a tree.

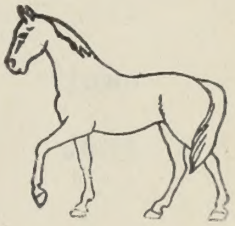
This is a boy.

This is a barn.

This is a house.

This is a horse

This is a cat.

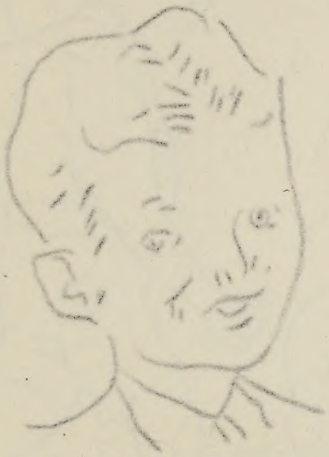


Make a box around the groups of words which are exactly alike.

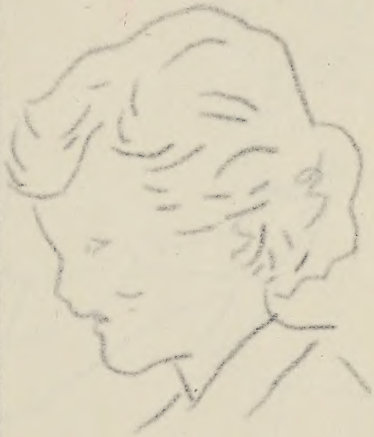
color	run	here
color	runs	here
for	me	green
me	me	orange
see	play	ball
see	plays	ball
is	for	blue
is	for	black
Make	it	jump
Make	is	jump
and	house	the
and	horse	they
is	brown	goat
are	brown	goats
what	me	can
that	my	can

Cut out the words below. Paste them under the right pictures.

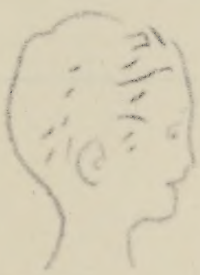
He



She

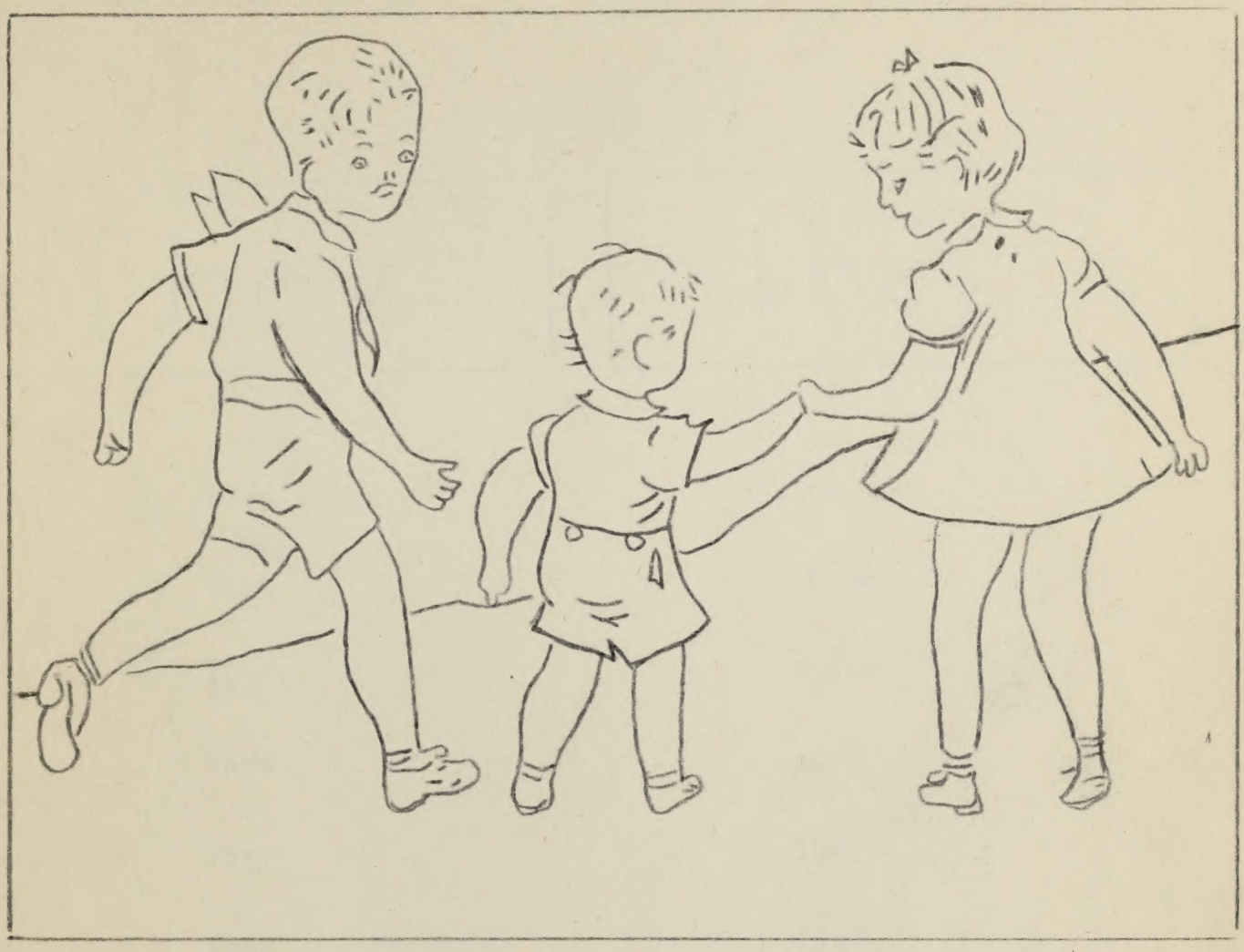


They



She	She	They
He	They	He
They	He	She

Trace over the word "They" with red crayon. Color the picture.

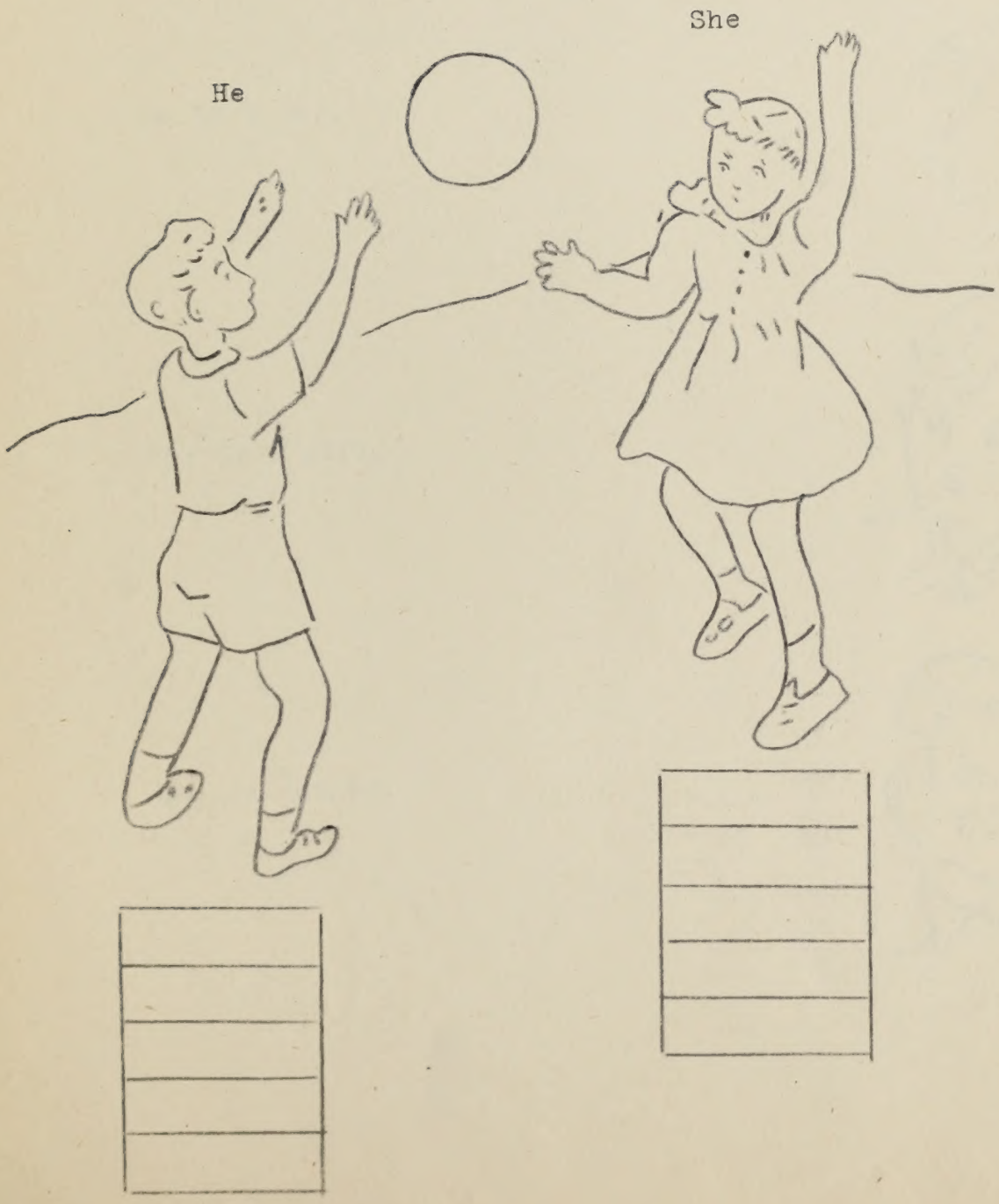


They

Put a ring around each word that is like the one in the box at the top of each row.

They	they
The	the
They	these
That	those
Them	they
They	the
They	they
The	they
They	that
The	they
They	they

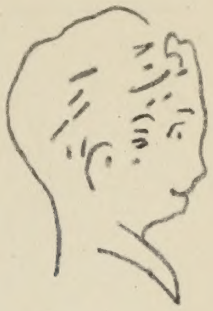
Cut out the words at the side. Paste them in the right boxes. Color the pictures.



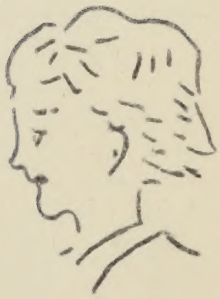
He
He
She
He
She
She
He
She
She
He

Draw a line from each sentence to the right picture.

He is father.



He is a boy.



She is a girl.

She is Mother.

Make a picture in each box ofsomething the name of which begins with the sound of the letter under each box.

m	b	c
d	s	f
b	g	r
p	l	n

Make a picture in each box ofsomething the name of which begins with the sound of the letter under each box.

m	b	c
d	s	f
b	g	r
p	l	n

Read the stories and do what it tells you to do.

This is a boy.

He is little.

Color the boy.

This is a girl.

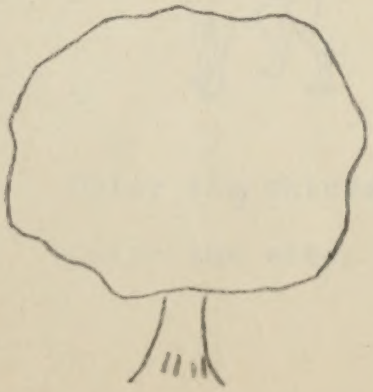
She is little.

Color the girl.

This is a tree.

The tree is big.

Color the tree green.



Draw a line from each sentence in the box to the correct picture.
Color the pictures.

I am a sheep.

I am a chicken.

I am a dog.

I am a rabbit.

Color the dog orange.

Color the rabbit black.

Color the chicken yellow.

Color the sheep brown.

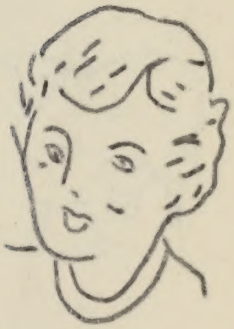
Draw a line from each sentence to the correct picture.

I am Mother.

I am a baby.

I am a girl.

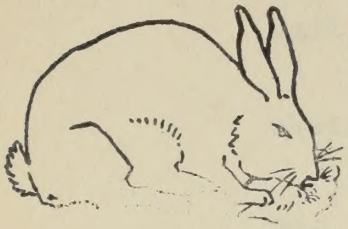
I am Father.



I am a boy.

Draw a line from each picture to the right picture.

Color the pictures.



I am a dog.

I am a goat.

I am a rabbit.

I am a pig.

I am a chicken.

I am a sheep.

I am a squirrel.

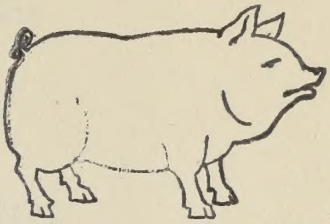
I am a cow.

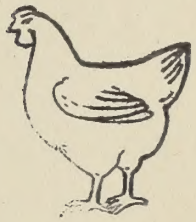
I am a cat.

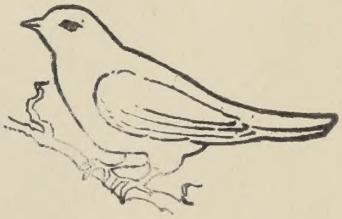
I am a bird.

I am a horse.

I am a duck.



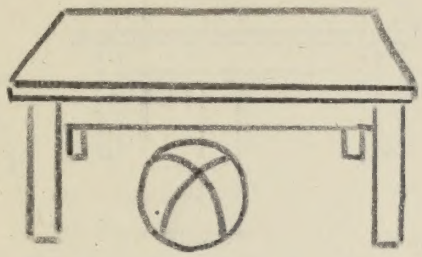




Draw lines between the two words that are alike.

ball	balloon
chair	table
box	squirrel
table	box
clock	horse
balloon	chair
squirrel	goat
horse	duck
goat	ball
cow	clock
pig	cow
duck	pig

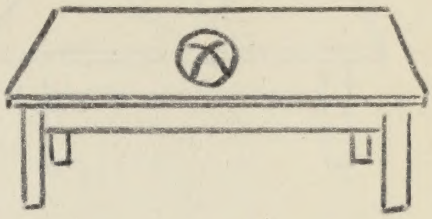
Underline the true sentences.



A ball is on the table.

A ball is in the table.

A ball is under the table.



A ball is by the table.

A ball is on the table.

A ball is in the table.

A ball is in the house.

A rabbit is by the house.

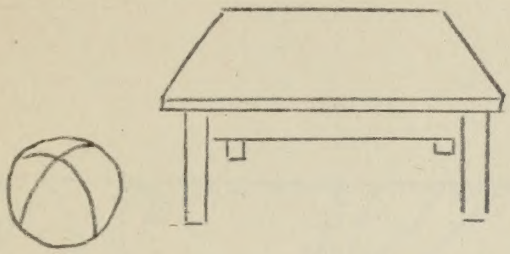
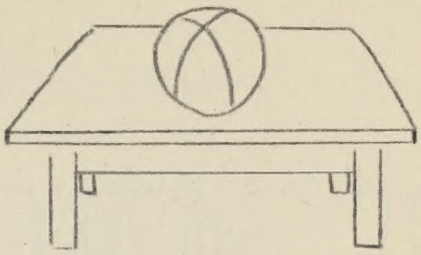
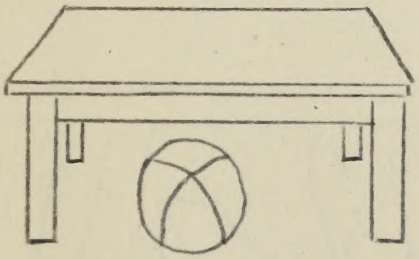
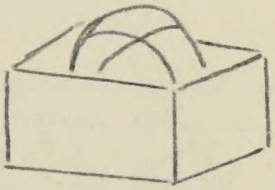
A dog is by the house.

A bird is in a nest.

A dog is in a nest.

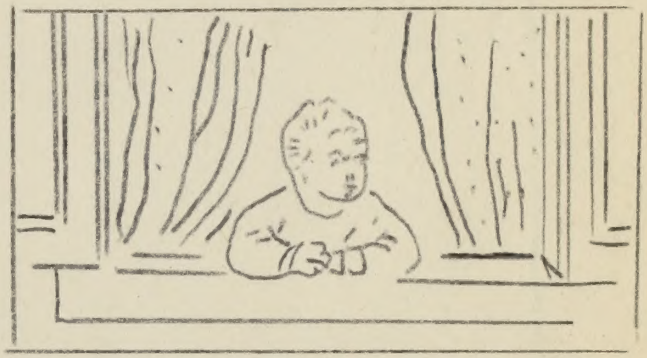
A cat is in the nest.

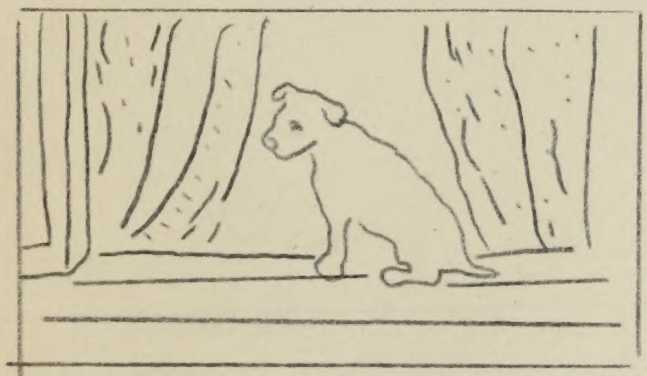
Cut out the matching sentences below. Paste them in the right boxes.

 A ball is <u>by</u> the table.	 A ball is <u>on</u> the table.
 A ball is <u>under</u> the table.	 A ball is <u>in</u> the box.

A ball is on the table.	A ball is under the table.
A oall is by the table.	A ball is in the box.

Look at each picture carefully. Find the sentence which tells about each picture. Cut out the sentence and paste it under the right picture.





A boy in a tree.

A cat in a tree.

A dog in a house.

A boy in a house.

Read and Do

1. Draw a house.
2. Draw a tree by the house.
3. Draw a bird in the tree.
4. Color the house red.
5. Color the tree green.
6. Color the bird blue.

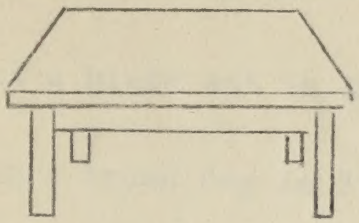
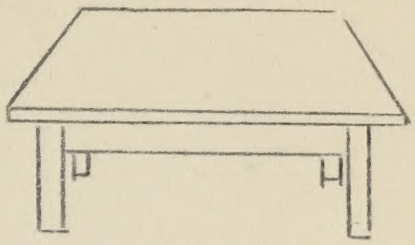
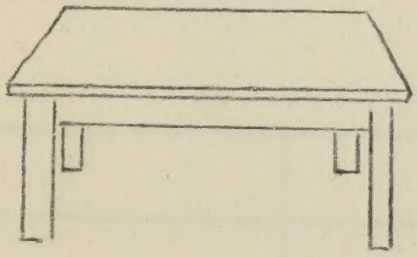
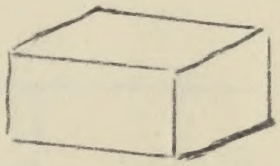
Draw what it says in each box.

Draw two red	Draw one red
Draw six blue	Draw three black
Draw five green	Draw three yellow

Draw what it says in each box.

Draw two red	Draw one red
Draw six blue	Draw three black
Draw five green	Draw three yellow

Read and Do

	
Make a ball under the table.	Make a ball on the table.
	
Make a ball by the table.	Make a ball in the box.

Color the tables blue.

Color the balls red.

Color the box green.

Read and Do

Make a red ball in 4.

Make a black cat in 1.

Make a brown dog in 3.

Make a yellow duck in 6.

Make a green tree in 5.

Make a blue boat in 2.

1	2	3
4	5	6

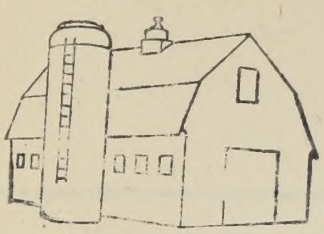
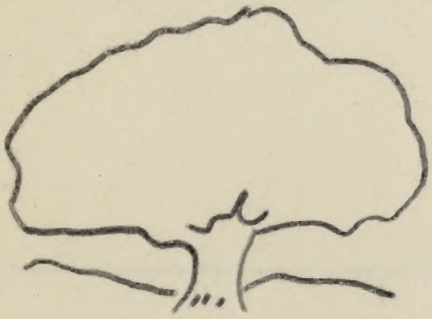
Make a picture in each box that begins with the letter at the top of each box.

b	s
t	d

Put a box around each word that is like the one in the box at the top of each row.

Here	here
He	here
Her	he
Here	her
Here	here
Has	his
Him	hear
Here	here
He	his
His	here
Here	his
Her	her
Here	here
Here	here

Read and Do

	Here is a barn. Make a brown cow by the barn.
	Here is a rabbit. Make a black rabbit by the rabbit.
	Here is a tree. Make one red bird in the tree.
	Here is a house. Make a red barn by the house.
	Here is a dog. Make a yellow cat by the dog.

Read and Do

Make a dog here.

Color the dog.

Make a house here.

Color the house.

Make a ball here.

Color the ball red.

Make a tree here.

Color the tree green.

Read and Do

Make a kite here. Color it blue.

Make a bed here. Color it yellow.

Make a sled here. Color it red.

Read and Do

Make a box here.

Color it red.

Make a balloon here.

Make a 5 on the balloon.

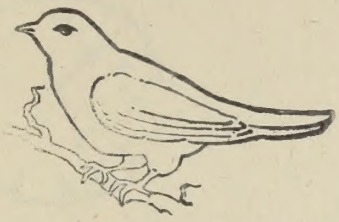
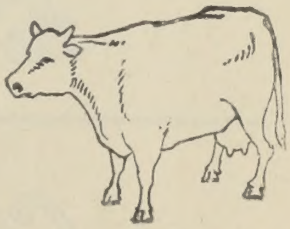
Make a sled here.

Make a boy on the sled.

Make a table here.

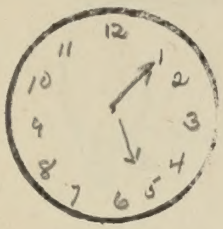
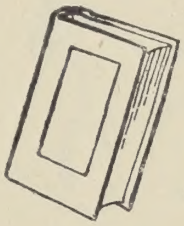
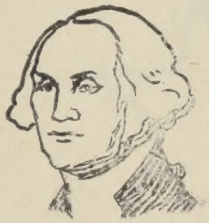
Make a ball on the table.

Put a ring around the letter which the name of the picture begins with.

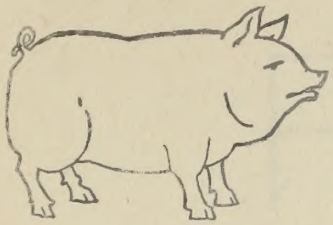
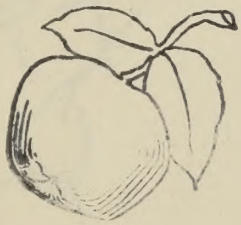
	
b c s	f t w
h j k	s l f
	
g h b	c b m

How many of these things are in your schoolroom?

Print "yes" or "no" by the picture.

How many of these are pictures of animals? Print "yes" or "no" after each picture.

To the teacher: Discuss the picture and the words.

Have the children trace over the words.

Put coloring directions on the board.

Play

play

Find the words "Play" and "play" in the sentences below.

Put a ring around them every time you see them.

The first two are done for you.

The children play ball.

Play ball, little girl.

I like to play ball.

See me play ball.

All the boys play ball.

We play in school.

We like to play with the boys.

Play out of doors every day.

Can you play with me.

See the children play ball.

People like to play.

Play ball, Baby.

I will play with you.

Play the game fairly.

I like to play checkers.

Put a ring around each word that is like the one in the box at the top of each row.

Play	play
Please	please
Play	play
Play	play
Pretty	pretty
Pride	play
Play	please
Please	pray
Pray	pay
Pay	play
Play	play
Place	place
Play	play

Draw a line under all the words that are like the first one in each box.

play
put
play
pray
play
pray
play
play

run
ran
run
run
ran
ran
run
run

jump
joke
jump
jump
jam
jump
jump
jump

make
make
made
name
mare
make
make
make

Write "yes" or "no" after each sentence.

A dog can play.

A boy can play.

A car can play.

A chair can play.

A clock can play.

A girl can play.

A ball can play.

A bed can play.

A rabbit can play.

A balloon can play.

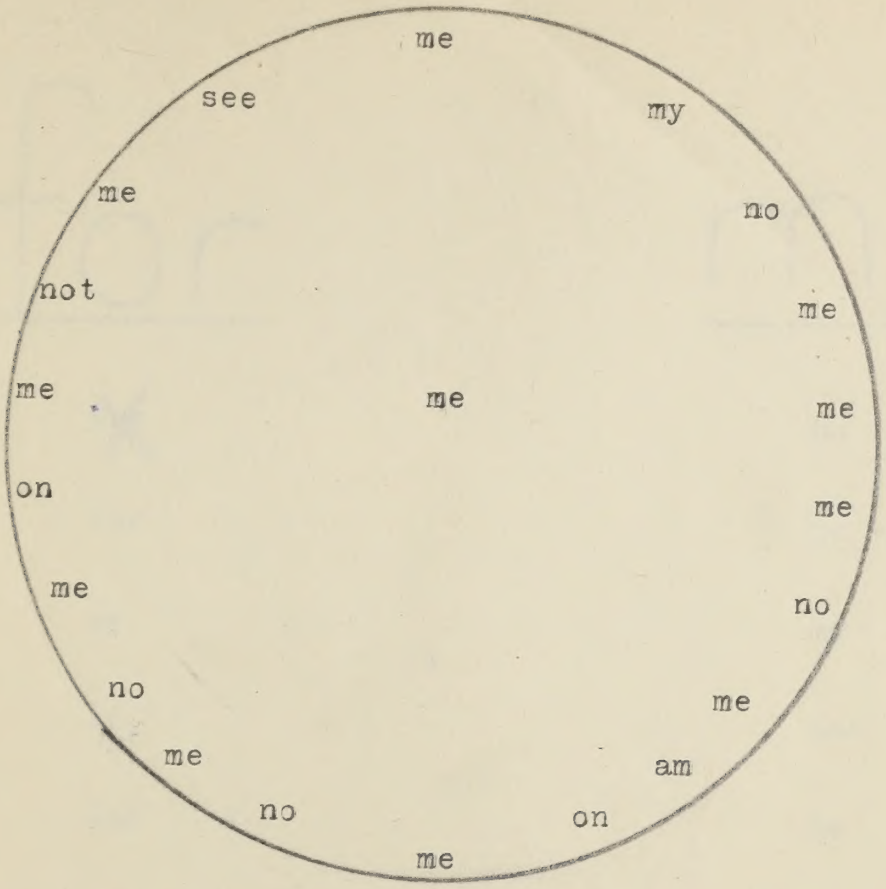
A baby can play.

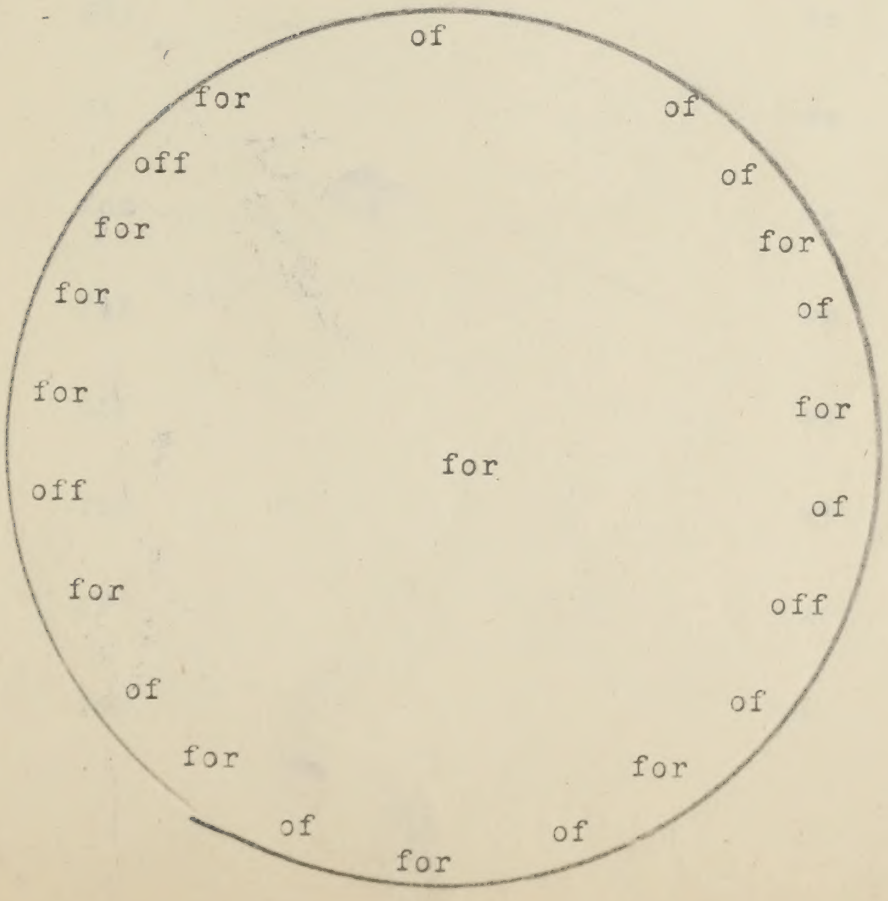
A box can play.

A squirrel can play.

A book can play.

Draw a line from the word in the middle to all the words just like it.





Cross all the words that are not like the big one in each row. The first one is done for you.

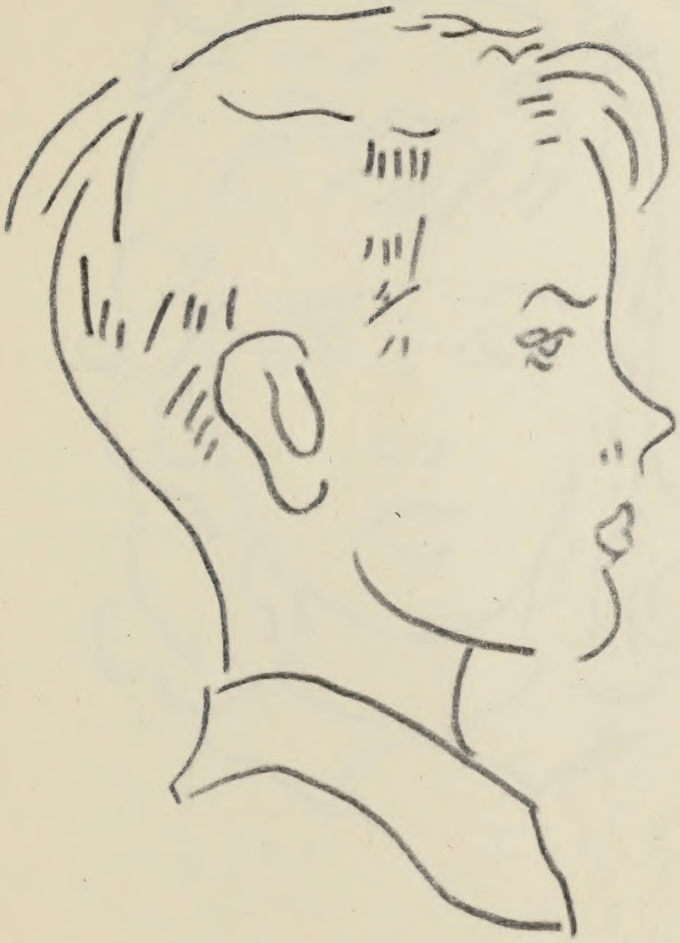
for	me
~~see~~	no
for	me
my	my
if	not
for	me
off	he
of	we
for	me
for	we
off	me
for	my
of	me
for	me

Read and Do

Make a kite for me.

Color the kite red.

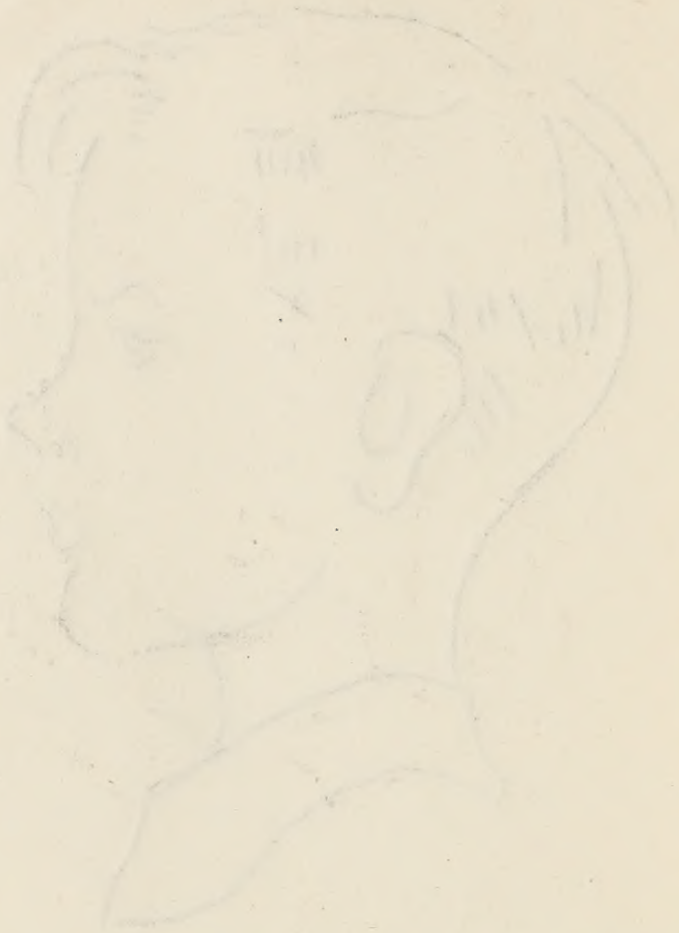
Make the kite here.



Make a boat for me.

Color the boat red

Make the boat here.



Make a ball for me.

Color the ball red.

Make the ball here.

Read and Do

Make a ball for the boy.

Color the ball.

Color the boy

Make a ball for the girl.

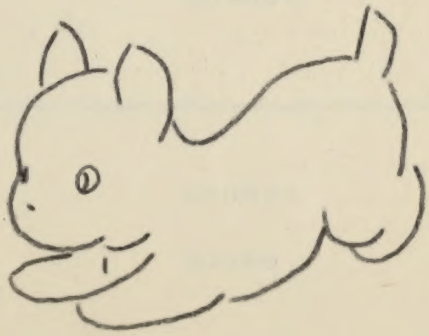
Color the ball.

Color the girl.

Make a ball for the dog.

Color the ball.

Color the dog.



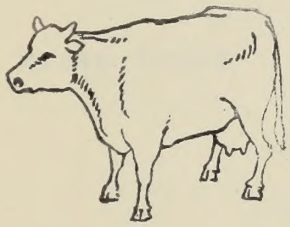
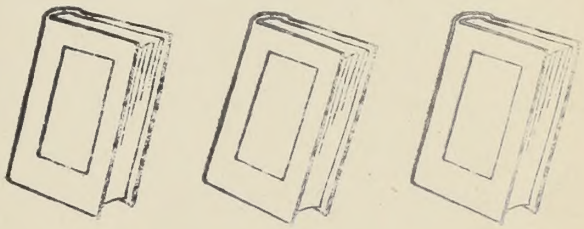
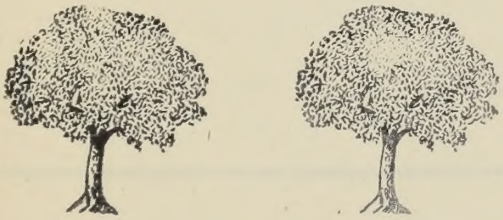
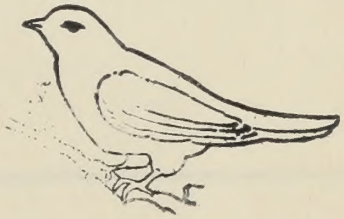
Make the second in each look like the first one.

cows cow.	beds bed
kites kite	clocks clock
balls ball	runs run
jumps jump	plays play
fathers father	mothers mother
goats goat	houses house

Make the second word in each box look like the first one.

its it	dogs dog
boys boy	rabbits rabbit
tables table	balloons balloon
chairs chair	horses horse
chickens chicken	books book
pigs pig	birds bird

Underline the word that fits each picture.

dog dogs	squirrels squirrel
	
cow cows	book books
	
tree trees	birds bird
cats cat	goats goat

Draw and color the right number of pictures for each box.

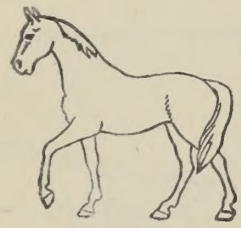
one brown rabbit
three green trees
five red balls
four orange balloons
two blue boats

Draw a ring around the word that fits each picture.

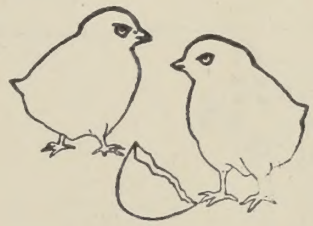
Color the pictures.

goat goats

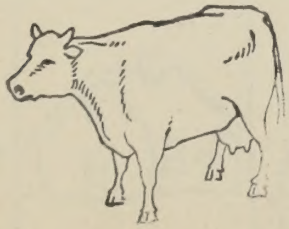
bird birds



horses horse



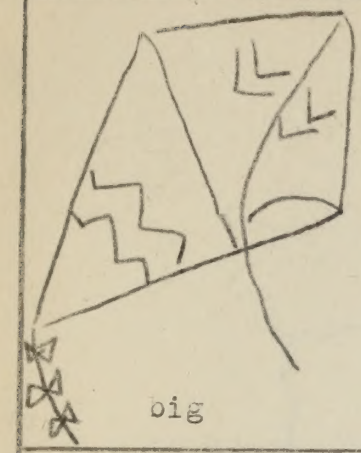
chickens chicken



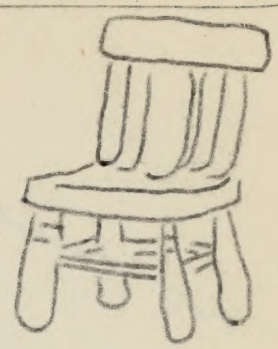
cows cow

boys boy

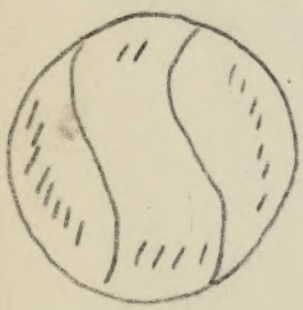
Find little pictures to paste beside the big pictures.



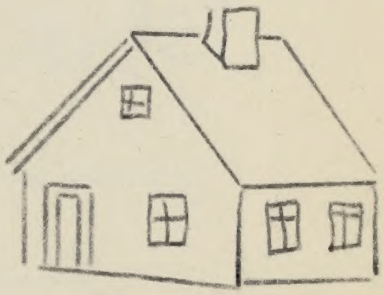
big little



little big



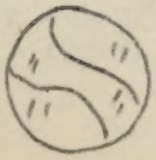
big little

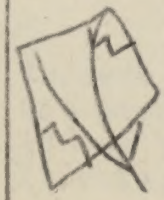


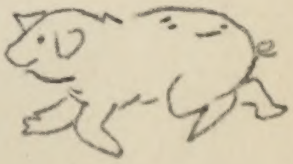
little big

big little

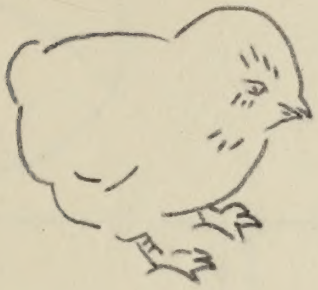
little big



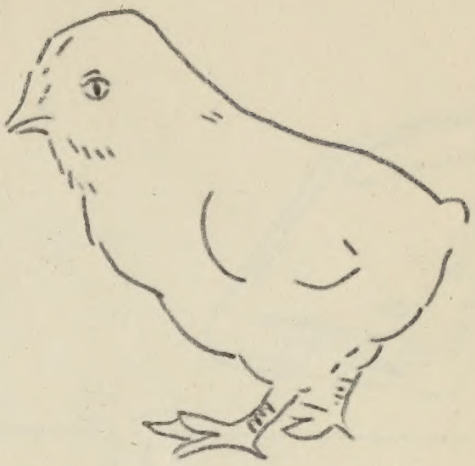




Read each phrase in the box and draw a line from it to the right picture. Color as directed.



a little chicken



a big chicken

a big cat

a little chicken

a little cat

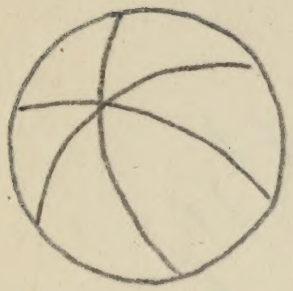
a big chicken

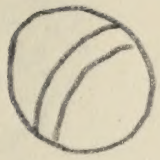
a little cat

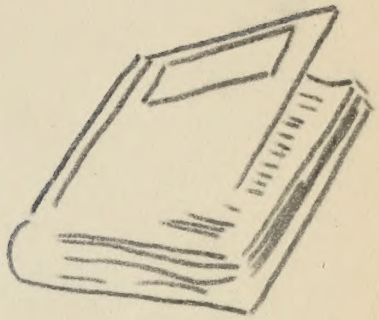
a big cat

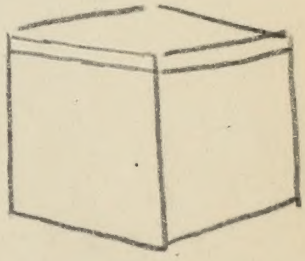
Color the big chicken yellow.
Color the big cat brown.
Color the little cat black.
Color the little chicken orange.

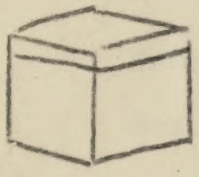
Cut out the words. Paste them in the right box.

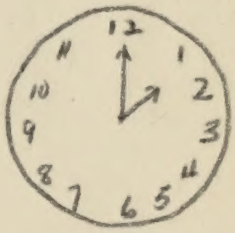












A big book	A little box	A big girl
A little girl	A little ball	A big ball
A big box	A little book	A little clock

Read the story and color the picture. Trace over the big words at the bottom of the page.

One, two, three, jump.

Jump, jump, little girl.

See the girl jump.

Jump jump

Read the sentences below. Write yes or no after each sentence.

A boy can jump.------

A dog can jump.------

A box can jump.------

A boat can jump.------

A ball can jump.------

A rabbit can jump.------

A house can jump.------

A cat can jump.------

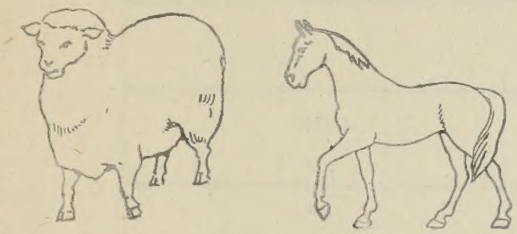
A table can jump.------

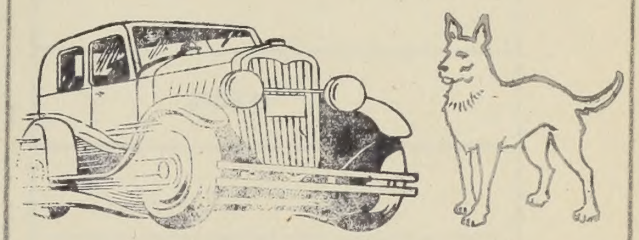
A chair can jump.------

A goat can jump.------

A tree can jump.------

Look at each picture carefully. Find the words that go with each picture. Cut them out and paste them under the right pictures.





a squirrel and a book

a sheep and a horse

a car and a dog

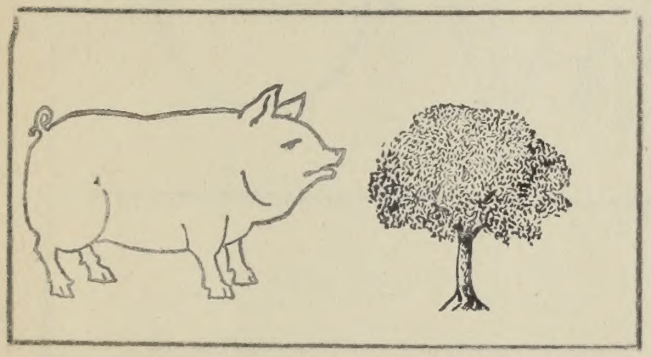
a duck and a goat

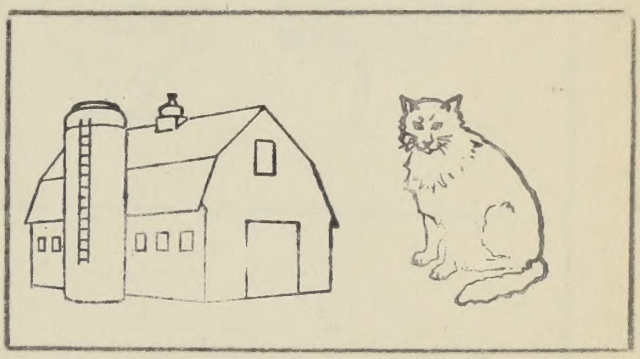
Cut out the words below and paste them in the right boxes.

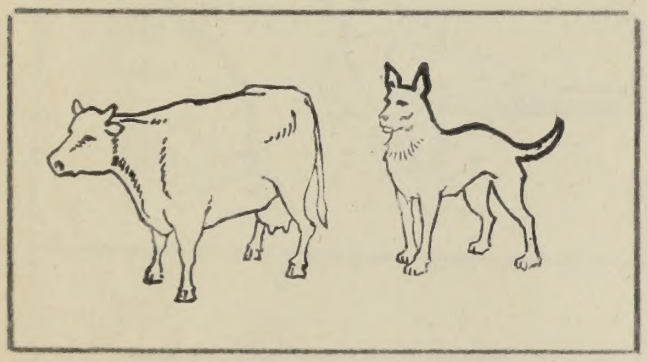
what	find
who	make
can	am

what	find	make	make	find	can
who	can	who	who	what	what
am	find	can	am	who	am
make	what	make	make	find	am

Cut out the words below. Paste them under the right pictures. Color the pictures.







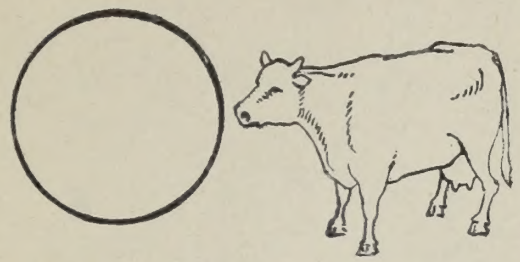
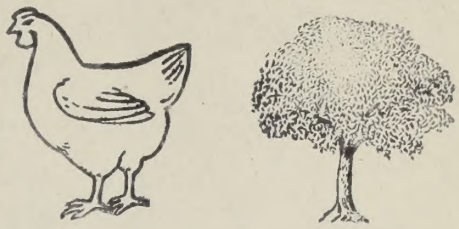
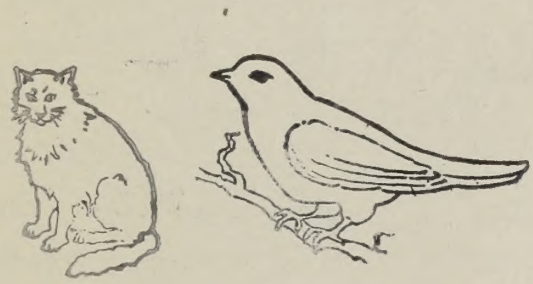
a cow and a dog

a pig and a tree

a barn and a cat

a boat and a house

Cut out the words below. Paste them under the right pictures. Color the pictures.

a boy and a girl	a ball and a cow
a chicken and a tree	a cat and a bird

Trace over the big words.

Read the story and then color the pictures.

Run
run

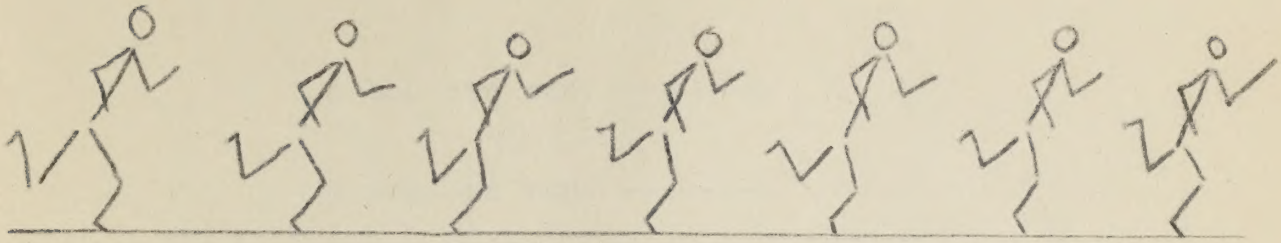
Run, run, little boy.

Run, run, little girl.

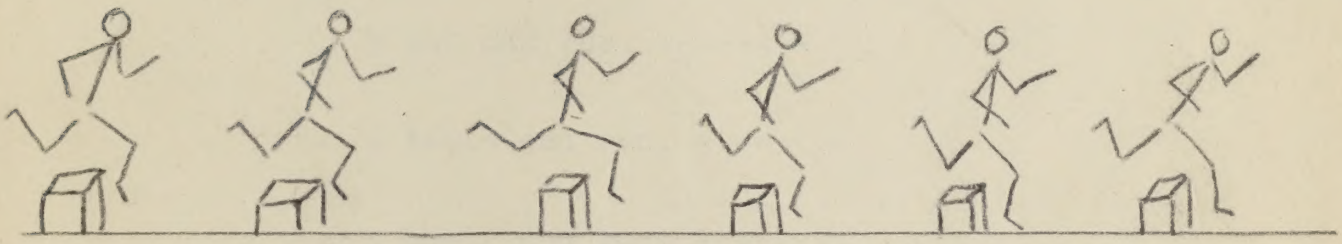
Run and play.

Run and play.

Cut out the sentences below. Paste them in the right boxes.



See the boys run.



See the boys jump.

See the boys run.	See the boys run.
See the boys jump.	See the boys jump.

Read the sentences below. Write "yes" or "no" after each sentence.

A boy can run. --------

A dog can run. --------

A box can run. --------

A boat can run. --------

A ball can run. --------

A rabbit can run. --------

A house can run. --------

A cat can run. --------

A table can run. --------

A chair can run. --------

A chicken can run. --------

A tree can run. --------

Each of these words says "who". Trace over the words with red crayon.

who

who

who

who

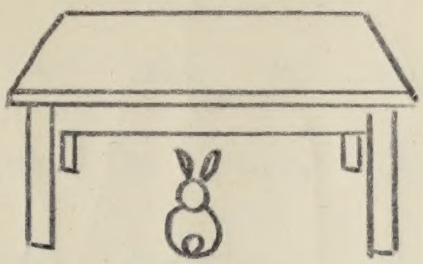
Underline the word that answers each question.

Color the pictures.

What is under the table?

balloon

rabbit



What is by the house?

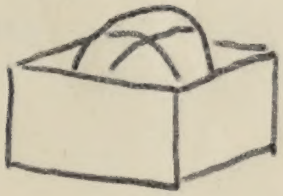
rabbit

balloon

What is in the box?

balloon

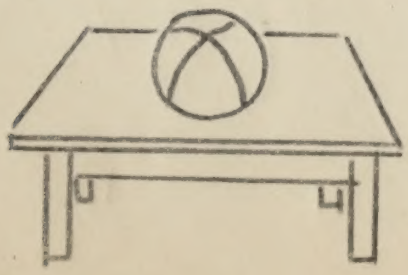
ball



What is on the table?

box

ball



Draw a line under all the words that are like the first one in each row. The first one is done for you.

1. <u>who</u> what <u>who</u> why <u>who</u>
2. who who we where who
3. who why who who we
4. who we want went we
5. who who where who we
6. who well will who who
7. who want whip who we
8. who work what who who
9. who who who we while
10. who why who who who

Draw a line under the right answers.

1. Who can see?

   rabbit

   ball

   dog

2. Who can run?

   sheep

   house

   boy

3. Who can jump?

   chair

   car

   girl

4. Who can play?

   cat

   father

   balloon

5. Who can run?

   cow

   tree

   mother

Draw a ring around the right answers.

Who is big? mother---baby

Who can jump? rabbit---ball

Who can play? chair---boy

Who can see? father---box

Who can run? table---girl

Who can color? box---boy

Who can make a house? father---duck

Who can lay house? girl---goat

Who can make a kite? boy--- chair

Who can see a ball? table----mother

Who can find a bird? bed---father

Who is little? baby---mother

Who is brown? baby---squirrel

Who is little? cat---horse

Put a ring around the words "What" and "what".

What do you see in the box?

I see what you have in your hand.

What animal gives us milk?

I know what you mean.

What is in the box?

Do you know what I did with the ball?

What time does the party begin?

Can you see what I see?

What did you have for lunch?

What time is it?

Underline the words that are just like the ones in the boxes at the top.

what	What
were	Were
why	Why
what	What
where	Where
went	Went
What	What
why	What
want	What
with	What
wish	Why
what	Who
who	What

Underline the right answers.

What is it?

a ball

a book

a box

What is it?

a dog

a box

a ball

What is it?

a car

a car

a dog

What is it?

a boy

a ball

a dog

What is it?

a dog

a horse

a house

What is it?

a boat

a ball

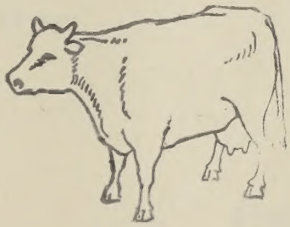
a dog

What is it?

A boy

A cow

A cat



What is it?

A pig

A squirrel

A baby

What is it?

A ball

A dog

A bird

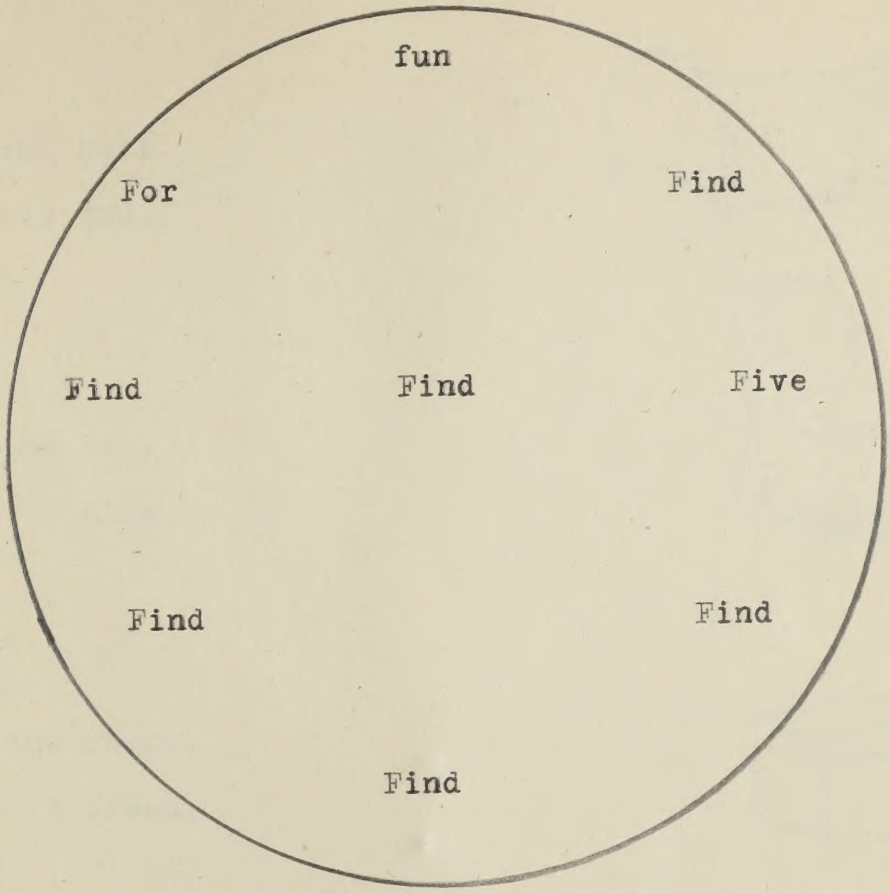
What is it?

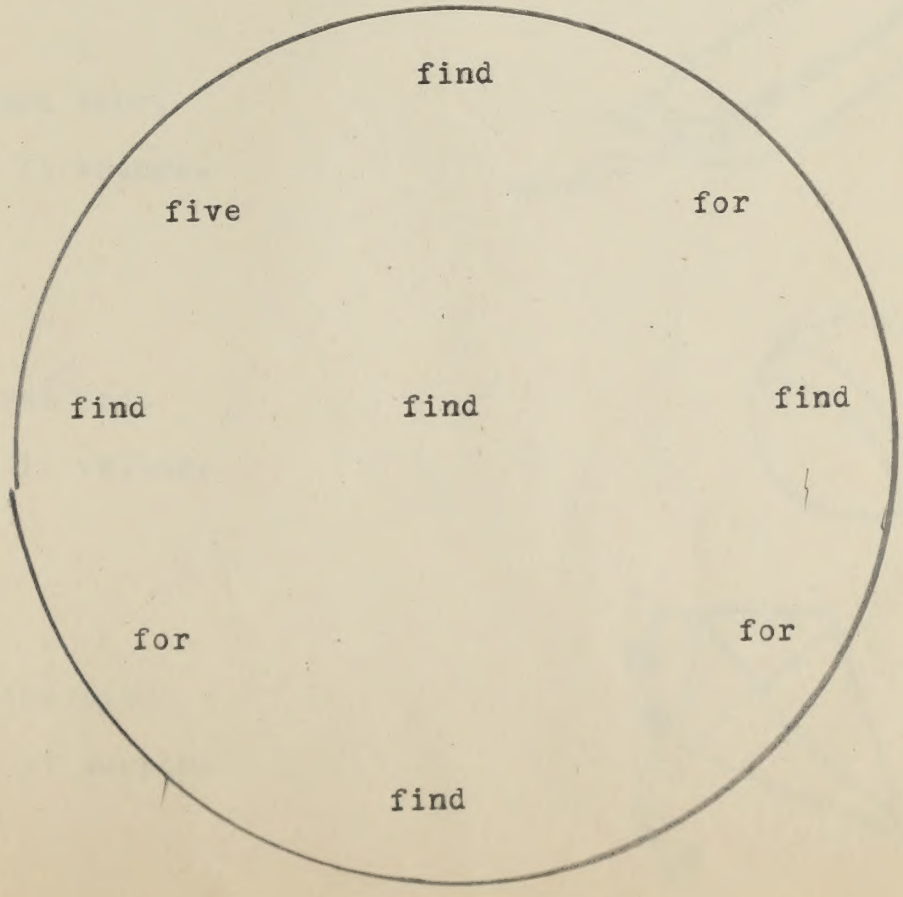
A balloon

A cow

A tree

Draw a line from the word in the middle to all the words just like.

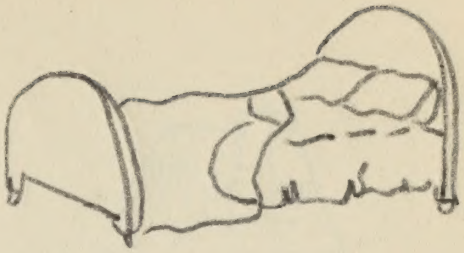




Read and Do

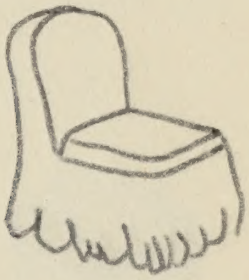
Find the ball.

Color it red.



Find the box.

Color it blue.

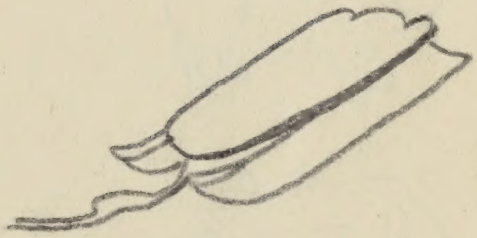


Find the chair.

Color it green.

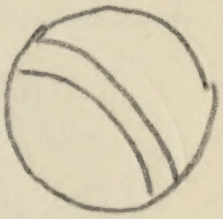
Find the sled.

Color it orange.



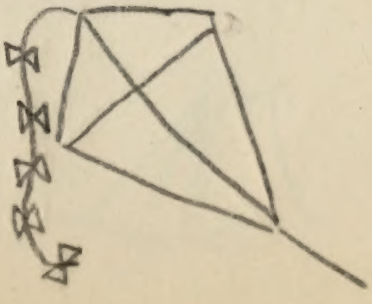
Find the bed.

Color it yellow.



Find the kite.

Color it purple.



Read and Do

Find a dog.

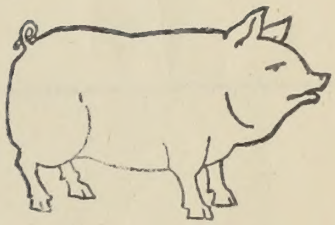
Color it brown.

Find a boat.

Color it blue.

Find a tree.

Color it green.



Find a pig.

Color it orange.

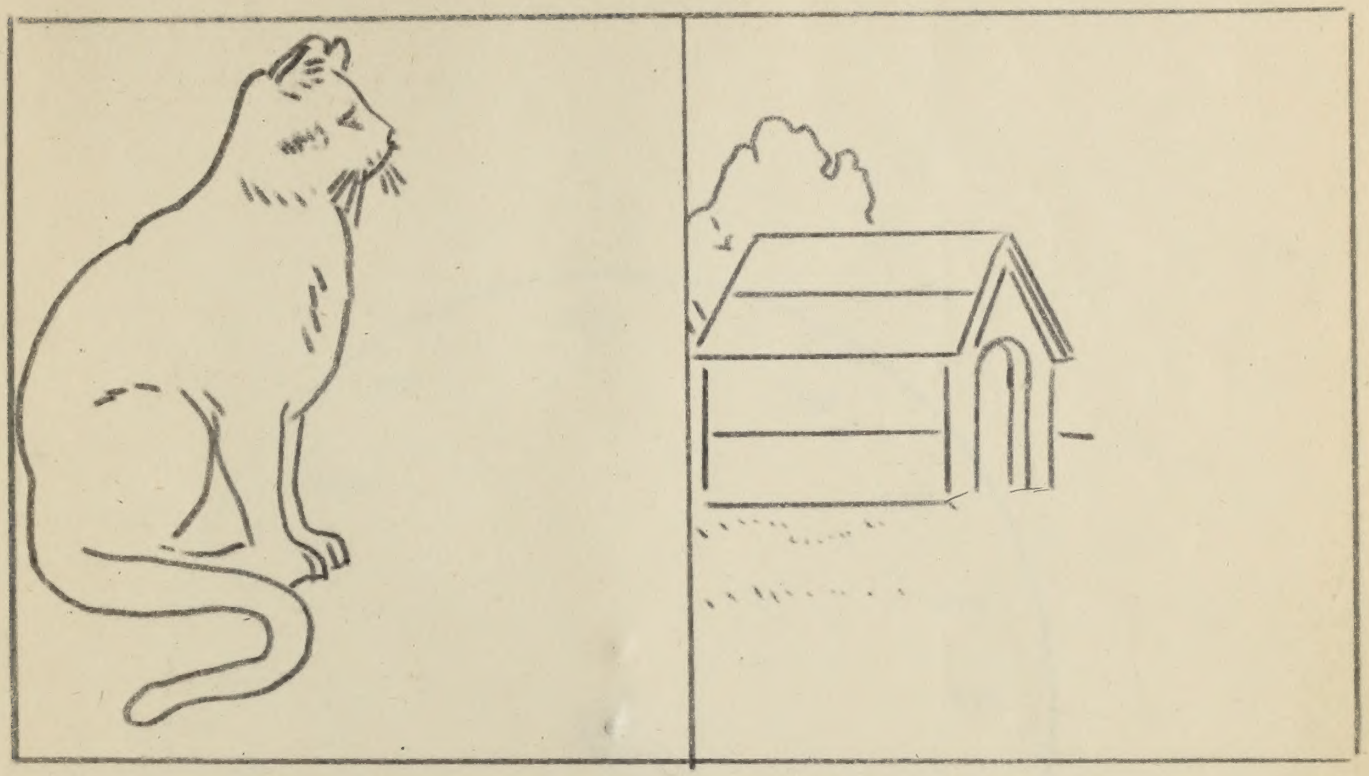
Find a barn.

Color it red.

Find a house.

Color it yellow.

Read and Do



Find the house.

Color it red.

Make a dog by the house.

Color the dog brown.

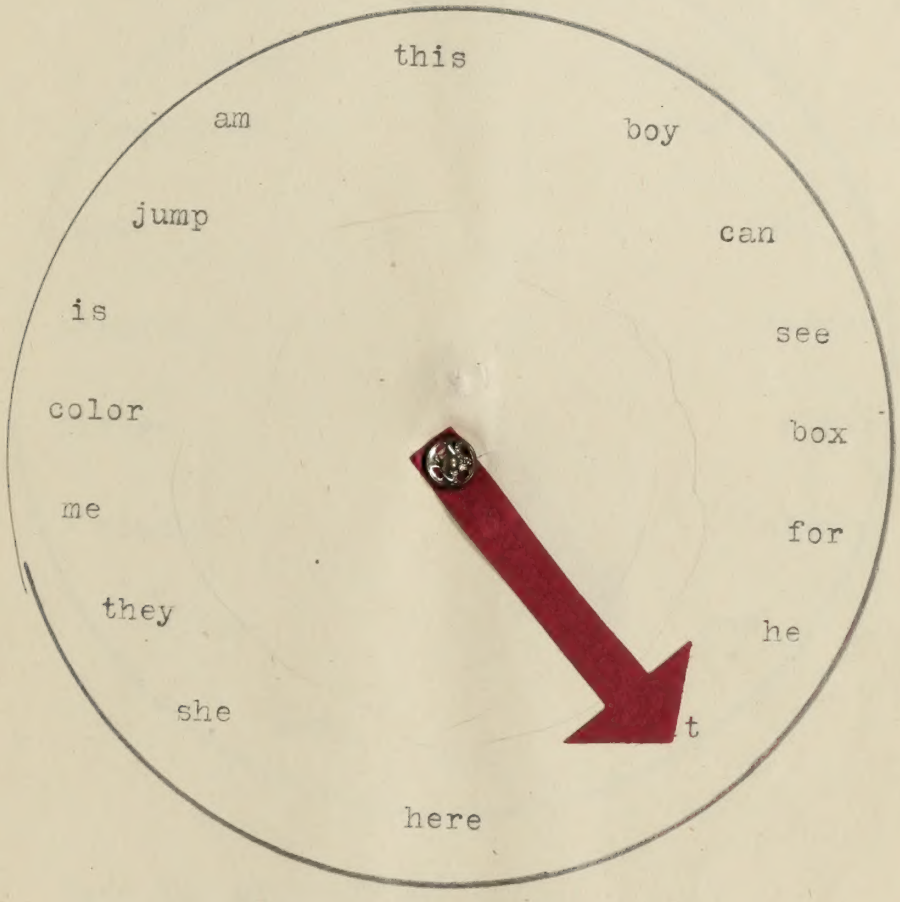
Find the big cat.

Color it black.

Make a little cat by the big cat.

(for oral drill)

Make the arrow point to the words I say.



(Teacher reads the directions)

Make the arrow point to:
The words that begin with(sound "S")
" " " " " " "B"
" " " " " " "T"
" " " " " " "M"
" " " " " " "F"

Make the arrow point to:
The thing we sit on.
The animal that gives us milk.
The thing we sleep in.
" " that tells us the time.
" " we fly in the wind.
The person who cooks our food.
" " " earns money for us.
The animal that catches mice.
" " " eats nuts.
The toy we bounce.
The thing that goes on the water.
The animal that lays eggs.
The thing that flies.
The person that likes to play.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was inaugurated as an attempt to construct a set of workbook exercises that would aid mentally retarded children in developing a basic sight vocabulary during the beginning reading period. A second factor involved in the study was to determine the best methods and techniques to use in developing such a vocabulary. The results of this study have fairly conclusive evidence that:

1. Each of the subjects used in the experiment made significant gain in the development of the beginning vocabulary through the use of workbook exercises.
2. Further evidence of progress was noted when the vocabulary was checked six weeks after the training had been discontinued. One third of the group had retained all of the words mastered during the workbook study and had mastered from one to three more words during the six week interval. The remainder of the group failed to retain a small percentage of words.
3. The child who made the least progress had the second highest mental age of the group. The child who made the greatest amount of progress had the lowest mental age and I.Q. of the group.

4. The greatest number of errors occurred on the words "no", "on", "house", and "horse". Whenever these errors were made the children were unable to distinguish between the words which appeared to be alike.
5. The next most common errors were made on the words "who" and "they". This was understandable as many normal children have difficulty in recognizing the "th" and "wh" words.
6. In many instances the words "eight" and "sled" were not retained even though they were given many repetitions and much drill.
7. Each of the children developed skill in recognizing and learning the names and sounds of initial consonants through the use of daily lessons from "Building Word Power". 41/
8. The use of games, pictures, and other interesting instructional material undoubtedly contributed to the development and retention of the vocabulary.

It cannot be stated that this study will be of value to all mentally retarded children since it failed to use the statistical procedures necessary for determining the worth of any study. Further research must be directed to ascertain

---

41/ Durrell and Sullivan, op. cit., 94 pp.

4. The greatest number of errors occurred on the words "no", "on", "house", and "horse". Whenever these errors were made the children were unable to distinguish between the words which appeared to be alike.

5. The next most common errors were made on the words "who" and "they". This was understandable as many normal children have difficulty in recognizing the "th" and "wh" words.

6. In many instances the words "eight" and "sled" were not retained even though they were given many repetitions and much drill.

7. Each of the children developed skill in recognizing and learning the names and sounds of initial consonants through the use of daily lessons from "Building Word Power". 41/

8. The use of games, pictures, and other interesting instructional material undoubtedly contributed to the development and retention of the vocabulary.

It cannot be stated that this study will be of value to all mentally retarded children since it failed to use the statistical procedures necessary for determining the worth of any study. Further research must be directed to ascertain

---

41/ Durrell and Sullivan, op. cit., 24 pp.

what materials and methods are best suited to the individual needs and abilities of mentally retarded children.

This student realizes that there are many limitations to this study because of the small number of subjects used. This was unavoidable since there were no other children available with whom she could work. The results shown would indicate the value of an experiment utilizing this workbook material or similar material on large groups of mentally retarded children. The data could then be analyzed and significant conclusions drawn.

what materials and methods are best suited to the individual needs and abilities of mentally retarded children.

This student realizes that there are many limitations to this study because of the small number of subjects used. This was unavoidable since there were no other children available with whom she could work. The results shown could indicate the value of an experiment utilizing this workbook material or similar material on large groups of mentally retarded children. The data could then be analyzed and significant conclusions drawn.

CHAPTER VI

SUGGESTIONS FOR FURTHER RESEARCH

Any study in the field of education seems to raise more questions and problems than it solves. This has been true of this study. This chapter attempts to point out some of the problems which have been raised during the course of this study.

1. How large a sight vocabulary should be taught to mentally retarded children before specific instruction in word analysis is begun?
2. Would a preliminary program of language development have any great effect on the future reading achievement of mentally retarded children?
3. Would a retarded child make more progress in reading, if, at the beginning of his school life he should be placed in a special class, rather than have him sit in the regular grades for one, two, or three years?
4. Would reading on a controlled level through rewriting of materials and careful selection produce a greater growth of vocabulary than the use of materials and books written for the average child?
5. What are the best methods and techniques for developing a sight vocabulary in mentally retarded children?

CHAPTER VI

SUGGESTIONS FOR FURTHER RESEARCH

Any study in the field of education seems to raise more questions and problems than it solves. This has been true of this study. This chapter attempts to point out some of the problems which have been raised during the course of this study.

1. How large a sight vocabulary should be taught to mentally retarded children before specific instruction in word analysis is begun?
2. Would a preliminary program of language development have any great effect on the future reading achievement of mentally retarded children?
3. Would a retarded child make more progress in reading if, at the beginning of his school life he should be placed in a special class, rather than have his all in the regular grades for one, two, or three years?
4. Would reading on a controlled level through rewriting of materials and material selection produce a greater growth of vocabulary than the use of materials and books written for the average child?
5. What are the best methods and techniques for developing a sight vocabulary in mentally retarded children?

6. Does the teaching of phonics have any effect on the reading achievement of mentally retarded children?
7. What words or type of words do mentally retarded children find difficult to learn? Are normal children confused by the same words?
8. What types of motivation have the greatest effect on the reading achievement and interest of the retarded child?
9. What effect do comic books and movies have on the reading achievement of the mentally retarded child?
10. There is a need for more follow-up studies on retarded children to determine the amount and kind of reading done by them after they leave school in order that we may adjust our reading programs to meet their future needs.

5. Does the teaching of phonics have any effect on the reading achievement of mentally retarded children?

7. What words or type of words do mentally retarded children find difficult to learn? Are words commonly confused by the same words?

8. What types of motivation have the greatest effect on the reading achievement and interest of the retarded child?

9. What effect do comic books and movies have on the reading achievement of the mentally retarded child?

10. There is a need for more follow-up studies on retarded children to determine the amount and kind of reading done by them after they leave school in order that we may adjust our reading programs to meet their future needs.

BIBLIOGRAPHY

A. BOOKS.

Baker, Harry J., Introduction to Exceptional Children. New York: The Macmillan Company, 1944. 466 pp.

Child Study Committee of the International Kindergarten Union, A Study of the Vocabulary of Children Before Entering First Grade. Washington, D. C.: International Kindergarten Union, 1928. 36 pp.

Durrell, Donald D., and Helen B. Sullivan, Building Word Power. Yonkers-on-Hudson, New York: World Book Company, 1941. 94 pp.

Farnum, Martha P., "Visual Aids in Concept Development," Eigth Yearbook, Claremont College Reading Conference. Claremont, California: Claremont College Library, 1943. 256 pp.

Featherstone, William B., Teaching the Slow Learner. New York: Bureau of Publications, Teachers College, Columbia University, 1941. 100 pp.

Gates, Arthur L., A Reading Vocabulary for the Primary Grades, Revised, New York: Bureau of Publications, Teachers College, Columbia University, 1935. 29 pp.

Gates, Arthur L., Interest and Ability in Reading. The Macmillan Company, 1930. 264 pp.

Goddard, Henry H., School Training of Defective Children. Yonkers-on-Hudson, New York: World Book Company, 1923. 97 pp.

Horn, Ernest, "The Development of a Meaningful Vocabulary and of Independence of Word Recognition," Twenty-fourth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Company, 1925. 410 pp.

Huber, Miriam B., The Influence of Intelligence Upon Children's Reading Interests, Teachers College Contributions to Education, No. 312. New York: Teachers College, Columbia University, 1928. 128 pp.

BIBLIOGRAPHY

A. BOOKS.

Baker, Harry J.. Introduction to Exceptional Children. New York: The Macmillan Company, 1944. 456 pp.

Child Study Committee of the International Kindergarten Union. A Study of the Vocabulary of Children Before Entering First Grade. Washington, D. C.: International Kindergarten Union, 1928. 56 pp.

Burrell, Donald D., and Helen S. Sullivan. Building Word Power. Yonkers-on-Hudson, New York: World Book Company, 1941. 94 pp.

Farnum, Martha F.. "Visual Aids in Concept Development." Eighth Yearbook, Claremont College Reading Conference. Claremont, California: Claremont College Library, 1943. 256 pp.

Featherstone, William B.. Teaching the Slow Learner. New York: Bureau of Publications, Teachers College, Columbia University, 1951. 170 pp.

Gates, Arthur I.. A Reading Vocabulary for the Primary Grades, Revised. New York: Bureau of Publications, Teachers College, Columbia University, 1935. 89 pp.

Gates, Arthur I.. Interest and Ability in Reading. The Macmillan Company, 1930. 284 pp.

Goddard, Henry H.. School Training of Defective Children. Yonkers-on-Hudson, New York: World Book Company, 1923. 97 pp.

Horn, Ernest. "The Development of a Meaningful Vocabulary and of Independence of Word Recognition." Twenty-fourth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Company, 1925. 410 pp.

Huber, Miriam B.. The Influence of Intelligence Upon Children's Reading Interests. Teachers College Contributions to Education, No. 312. New York: Teachers College, Columbia University, 1928. 128 pp.

Ingram, Christine P., Education of the Slow-Learning Child, Yonkers-on-Hudson, New York: World Book Company, 1935. 419 pp.

Inskeep, Annie D., Teaching Dull and Retarded Children, New York: The Macmillan Company, 1926. 455 pp.

Kirk, Samuel A., Teaching Reading to Slow Learning Children, Boston: Houghton Mifflin Company, 1940. 225 pp.

Rinsland, Henry D., A Basic Vocabulary of Elementary School Children. New York: The Macmillan Company, 1945. 323 pp.

Stone, Clarence, Better Primary Reading. St. Louis: Webster Publishing Company, 1936. 536 pp.

Thorndike, Edward L., The Teachers Wordbook of 20,000 Words, New York: Bureau of Publications, Teachers College, Columbia University, 1930. 182 pp.

B. Periodicals

Dolch, Edward A., "A Basic Sight Vocabulary," Elementary School Journal, 36: 456-60, February, 1936.

Durrell, Donald D., "A Vocabulary for Corrective Reading," Elementary English Review, II: 106-109, April, 1934.

Fernald, Grace M., and Helen Keller, "The Effect of Kinaesthetic Factors in the Development of Word Recognition in the Case of Non-Readers," Journal of Educational Research, 4: 355-77, December, 1921.

Gates, Arthur L., and M. C. Pritchard, "Teaching Reading to Slow Learning Children," Teachers College Record, 43: 255-63, January, 1942.

Hart, Olive, "An Evaluation of a School for Retarded and Epileptic Children," American Journal on Mental Deficiency, 39: 177-84, October, 1934.

Hildreth, Gertrude, "All in Favor of a Low Vocabulary," Elementary School Journal, 44: 462-70, April, 1943.

Ingram, Christine P., Education of the Slow-Learning Child, Yonkers-on-Hudson, New York: World Book Company, 1935. 419 pp.

Inskeep, Annie D., Teaching Dull and Retarded Children, New York: The Macmillan Company, 1926. 453 pp.

Kirk, Samuel A., Teaching Reading to Slow Learning Children, Boston: Houghton Mifflin Company, 1940. 225 pp.

Rioaland, Henry O., A Basic Vocabulary of Elementary School Children. New York: The Macmillan Company, 1943. 382 pp.

Stone, Clarence, Better Primary Reading. St. Louis: Webster Publishing Company, 1936. 336 pp.

Thorndike, Edward L., The Teachers Wordbook of 20,000 Words, New York: Bureau of Publications, Teachers College, Columbia University, 1930. 182 pp.

B. Periodicals

Dolch, Edward A., "A Basic Sight Vocabulary," Elementary School Journal, 36: 456-60, February, 1936.

Dorrell, Donald D., "A Vocabulary for Corrective Reading," Elementary English Review, 11: 106-109, April, 1934.

Fernald, Grace M., and Helen Keller, "The Effect of Kinaesthetic Factors in the Development of Word Recognition in the Case of Non-Readers," Journal of Educational Research, 4: 355-77, December, 1921.

Gates, Arthur L., and M. C. Pritchard, "Teaching Reading to Slow Learning Children," Teachers College Record, 43: 253-63, January, 1942.

Hart, Olive, "An Evaluation of a School for Retarded and Epileptic Children," American Journal on Mental Deficiency, 39: 177-84, October, 1934.

Hilarets, Gertrude, "All in Favor of a Low Vocabulary," Elementary School Journal, 44: 462-70, April, 1943.

Kirk, Samuel A., "The Influence of Manual Tracing on the Learning of Simple Words in the Case of Subnormal Boys," Journal of Educational Psychology, 24: 525-35, October, 1933.

Kyte, George C., "A Core Vocabulary for the Primary Grades," Elementary School Journal, 44: 157-66, October, 1943.

Parkham, Lillian C., "Teaching Low I.Q.'s to Read," English Journal, 32: 360-62, December, 1943.

Vaughn, Charles L., and Lorena Hubbs, "Teaching Reading Vocabulary to Lower Grade Morons," American Journal on Mental Deficiency, 42: 68-76, May, 1937.

Walsh, Elizabeth A., "Improvement of Reading in Ungraded Classes," Journal of Exceptional Children, 145-155, April, 1938.

Wheeler, H. E., and Emma Howell, "A First Grade Vocabulary Study," Elementary School Journal, 31: 52-60, September, 1930.

C. Tests

Detroit Word Recognition Test, Grade I. Yonkers-on-Hudson, New York: World Book Company, 1937.

Durrell, Donald D., and Helen B. Sullivan, Reading Capacity and Achievement Tests, Primary Test: Form A. Yonkers-on-Hudson, New York: World Book Company, 1939.

Gates, Arthur L., Primary Reading Test, Type I. Word Recognition. New York: Bureau of Publications, Teachers College, Columbia University, 1943.

Terman, Lewis M., and Maud A. Merrill, New Revised Stanford-Binet Tests of Intelligence, Boston: Houghton Mifflin Company, 1937. Form M.

Kirk, Samuel A., "The Influence of Manual Tracing on the Learning of Simple Words in the Case of Subnormal Boys," Journal of Educational Psychology, 24: 328-35, October, 1933.

Kyte, George C., "A Core Vocabulary for the Primary Grades," Elementary School Journal, 44: 157-66, October, 1943.

Parkhurst, Lillian G., "Teaching Low I.Q.'s to Read," English Journal, 32: 360-62, December, 1943.

Vaughn, Charles L., and Loreda Bubbs, "Teaching Reading Vocabulary to Lower Grade Morons," American Journal on Mental Deficiency, 42: 68-76, May, 1937.

Walsh, Elizabeth A., "Improvement of Reading in Ungraded Classes," Journal of Exceptional Children, 146-158, April, 1936.

Wheeler, R. E., and Emma Howell, "A First Grade Vocabulary Study," Elementary School Journal, 31: 32-40, September, 1930.

C. Tests

Detroit Word Recognition Test, Grade I. Yonkers-on-Hudson, New York: World Book Company, 1937.

Darrell, Donald D., and Helen B. Sullivan, Reading Capacity and Achievement Tests, Primary Test: Form A. Yonkers-on-Hudson, New York: World Book Company, 1939.

Gates, Arthur I., Primary Reading Test, Type I. Word Recognition. New York: Bureau of Publications, Teachers College, Columbia University, 1943.

Terman, Lewis M., and Maud A. Merrill, New Revised Stanford-Binet Tests of Intelligence, Boston: Houghton Mifflin Company, 1937. Form M.

APPENDIX

The following pages contain the individual check-sheets of the three vocabulary checks made during the study.

APPENDIX

The following pages contain the individual check-sheets of the three vocabulary checks made during the study.

Pupil I

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	eight		x	x	pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball	x	x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red	x	x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big		x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse				sled		x	x
book		x	x	house				squirrel		x	x
box		x	x	I	x	x	x	table		x	x
boy		x	x	in		x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x	x	it		x	x	they			x
can		x	x	jump		x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x	x	under		x	x
clock		x	x	mother		x	x	what		x	
color		x	x	nine		x	x	who			x
cow		x	x	no			x	yellow		x	x
dog		x	x	on				yes		x	x
draw		x	x	one		x	x	TOTAL	4	77	79

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Appl I

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	sight		x	x	pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball	x	x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red	x	x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big		x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse				sled		x	x
book		x	x	house				squirrel		x	x
box		x	x	I	x	x	x	table		x	x
boy		x	x	in		x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x	x	it		x	x	they			x
can		x	x	jump		x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x	x	under		x	x
clock		x	x	mother		x	x	what		x	
color		x	x	nine		x	x	who			x
cow		x	x	no			x	yellow		x	x
dog		x	x	on				yes		x	x
draw		x	x	one		x	x	TOTAL	4	77	79

Test I given on October 1, 1945.
Test II given on December 2, 1945.
Test III given on January 16, 1946.

Pupil II

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	eight				pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball		x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red	x	x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big		x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse		x	x	sled		x	
book		x	x	house		x	x	squirrel		x	x
box		x	x	I	x	x	x	table		x	x
boy		x	x	in	x	x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x	x	it		x	x	they		x	x
can		x	x	jump		x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x	x	under		x	x
clock		x	x	mother		x	x	what		x	x
color		x	x	nine		x	x	who		x	x
cow		x	x	no		x	x	yellow		x	x
dog		x	x	on		x	x	yes		x	x
draw				one		x	x	TOTAL	3	81	80

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Table II

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
a	x	x	x	duck		x	x	orange		x	x
am		x	x	eight				pig		x	x
and		x	x	father		x	x	play		x	x
bag		x	x	film		x	x	purple		x	x
ball		x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red	x	x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big		x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	sheep		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse		x	x	sled		x	
book		x	x	house		x	x	sniffed		x	x
box		x	x	I	x	x	x	table		x	x
boy		x	x	in		x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x	x	it		x	x	they		x	x
can		x	x	jump		x	x	this		x	x
cat		x	x	kite		x	x	three		x	x
dog		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x	x	under		x	x
clock		x	x	mother		x	x	what		x	x
color		x	x	nine		x	x	was		x	x
cow		x	x	no		x	x	yellow		x	x
cup		x	x	on		x	x	yes		x	x
dog				one		x	x	TOTAL	3	81	80

Test I given on October 1, 1945.
Test II given on December 4, 1945.
Test III given on January 15, 1946.

Pupil III

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	eight				pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball		x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red	x	x	x
barn				four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big		x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse				sled			
book		x	x	house				squirrel.		x	x
box		x	x	I	x	x	x	table		x	x
boy		x	x	in		x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x		it		x	x	they		x	x
can		x	x	jump		x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat	x	x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x	x	under		x	
clock		x	x	mother		x	x	what		x	x
color		x	x	nine		x	x	who		x	x
cow		x	x	no				yellow		x	x
dog		x	x	on				yes		x	x
draw		x	x	one		x		TOTAL	4	76	73

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Table III

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
a	x	x	x	duck		x	x	orange		x	x
ate		x	x	elephant				pig		x	x
and		x	x	father		x	x	play		x	x
away		x	x	find		x	x	purple		x	x
ball		x	x	five		x	x	rabbit		x	x
balloon		x	x	for	x	x	x	red	x	x	x
barn				four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big		x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black		x	x	ha		x	x	sheep		x	x
blue		x	x	hens		x	x	six		x	x
boat		x	x	horse				sled			
book		x	x	house				squirrel		x	x
boy		x	x	I	x	x	x	table		x	x
brown		x	x	in		x	x	ten		x	x
by		x		is		x	x	the		x	x
can		x	x	it		x	x	they		x	x
car		x	x	jump		x	x	this		x	x
cat	x	x	x	kite		x	x	three		x	x
chair		x	x	little		x	x	tree		x	x
chicken		x	x	make		x	x	two		x	x
close		x	x	me		x	x	under		x	x
color		x	x	mother		x	x	what		x	x
cow		x	x	mine		x	x	who		x	x
dog		x	x	no				yellow		x	x
draw		x	x	on				yes		x	x
				one				TOTAL	4	16	72

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Pupil IV

Results of the three vocabulary checks made during the study

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	eight		x	x	pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball	x	x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red		x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big	x	x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse		x	x	sled		x	x
book		x	x	house		x	x	squirrel		x	x
box		x	x	I	x	x	x	table		x	x
boy	x	x	x	in		x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x	x	it		x	x	they		x	x
can		x	x	jump		x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x	x	under		x	x
clock		x	x	mother		x	x	what		x	x
color		x	x	nine		x	x	who		x	x
cow		x	x	no		x		yellow		x	x
dog		x	x	on		x		yes		x	x
draw		x	x	one		x	x	TOTAL	5	83	81

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Pupil IV

Results of the three vocabulary checks made during the study

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	eight		x	x	pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball	x	x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red		x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big	x	x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse		x	x	sled		x	x
book		x	x	house		x	x	squirrel		x	x
box		x	x	I	x	x	x	table		x	x
boy	x	x	x	in		x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x	x	it		x	x	they		x	x
can		x	x	jump		x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x	x	under		x	x
clock		x	x	mother		x	x	what		x	x
color		x	x	nine		x	x	who		x	x
cow		x	x	no		x		yellow		x	x
dog		x	x	on		x		yes		x	x
draw		x	x	one		x	x	TOTAL	5	53	81

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Pupil V

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	eight		x		pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball	x	x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red	x	x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big	x	x	x	goat		x	x	seven		x	x
bird		x		green		x	x	she		x	x
black		x	x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse		x	x	sled		x	
book		x	x	house		x	x	squirrel		x	x
box		x	x	I	x	x	x	table		x	x
boy		x	x	in		x	x	ten		x	x
brown		x	x	is		x	x	the		x	x
by		x		it		x	x	they		x	
can		x	x	jump	x	x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x	x	me		x		under		x	x
clock		x		mother		x	x	what		x	x
color		x	x	nine		x	x	who		x	x
cow		x	x	no		x	x	yellow		x	x
dog		x	x	on		x	x	yes		x	x
draw		x	x	one		x	x	TOTAL	6	83	76

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Pupil V

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
[illegible]	x	x	x	duck		x	x	orange		x	x
[illegible]		x	x	eight		x		pie		x	x
ana		x	x	father		x	x	play		x	x
[illegible]		x	x	find		x	x	purple		x	x
[illegible]	x	x	x	five		x	x	rabbit		x	x
[illegible]		x	x	for		x	x	red	x	x	x
[illegible]		x	x	four		x	x	run		x	x
[illegible]		x	x	girl		x	x	see		x	x
[illegible]	x	x	x	goat		x	x	seven		x	x
[illegible]		x		green		x	x	she		x	x
[illegible]		x	x	he		x	x	sheep		x	x
[illegible]		x	x	here		x	x	six		x	x
[illegible]		x	x	horse		x	x	sled		x	
[illegible]		x	x	house		x	x	squirrel		x	x
[illegible]		x	x	I	x	x	x	table		x	x
[illegible]		x	x	in		x	x	ten		x	x
[illegible]		x	x	is		x	x	the		x	x
[illegible]		x		it		x	x	they		x	
[illegible]		x	x	jump	x	x	x	this		x	x
[illegible]		x	x	kite		x	x	three		x	x
[illegible]		x	x	little		x	x	tree		x	x
[illegible]		x	x	make		x	x	two		x	x
[illegible]		x	x	me		x		under		x	x
[illegible]		x		mother		x	x	what		x	x
[illegible]		x	x	mine		x	x	who		x	x
[illegible]		x	x	no		x	x	yellow		x	x
[illegible]		x	x	on		x	x	yes		x	x
[illegible]		x	x	one		x	x	TOTAL	6	83	76

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Pupil VI

Results of the three vocabulary checks made during the study.

Word	I	II	III	Word	I	II	III	Word	I	II	III
A	x	x	x	duck		x	x	orange		x	x
am		x	x	eight			x	pig		x	x
and		x	x	father		x	x	play		x	x
baby		x	x	find		x	x	purple		x	x
ball	x	x	x	five		x	x	rabbit		x	x
balloon		x	x	for		x	x	red	x	x	x
barn		x	x	four		x	x	run		x	x
bed		x	x	girl		x	x	see		x	x
big		x	x	goat		x	x	seven		x	x
bird		x	x	green		x	x	she		x	x
black			x	he		x	x	sheep		x	x
blue		x	x	here		x	x	six		x	x
boat		x	x	horse		x	x	sled		x	x
book		x	x	house		x	x	squirrel		x	x
box		x	x	I	x	x	x	table		x	x
boy		x	x	in		x	x	ten		x	x
brown			x	is		x	x	the		x	x
by		x	x	it		x	x	they			x
can		x	x	jump		x	x	this		x	x
car		x	x	kite		x	x	three		x	x
cat		x	x	little		x	x	tree		x	x
chair		x	x	make		x	x	two		x	x
chicken		x		me		x	x	under		x	x
clock		x	x	mother		x	x	what		x	x
color		x	x	nine		x	x	who		x	x
cow		x	x	no		x	x	yellow		x	x
dog		x	x	on		x	x	yes		x	x
draw		x	x	one		x		TOTAL	4	79	82

Test I given on October 1, 1945.
Test II given on December 3, 1945.
Test III given on January 16, 1946.

Date Due

JAN 5 1963			
NOV 18 1963			
Rm Use			

Demco 293-5

L, D.R.
Pap.
6

Exercises for the development of a beginning reading ...

BOSTON UNIVERSITY
1 1719 02479 6312

Ser. Pap.
Noel, D.R.
1946

Stored

ACCOPRESS BINDER
BFS 250 P7-EMB
To hold sheet size 11 x 8½.
Also available in special sizes up to 35½" x 39½" sheet size. Specify binding side first when ordering.
Manufactured By
Acco Products, Inc., Ogdensburg, N. Y., U. S. A.